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Guidance Manual

for complying with the

Gray Davis, Governor
State of California

Winston H. Hickox, Secretary
California Environmental Protection Agency

Edwin F. Lowry, Director
Department of Toxic Substances Control

California Environmental Protection Agency

Department of Toxic Substances Control

Office of Pollution Prevention
and Technology Development

Guidance Manual

for complying with the

HAZARDOUS

WASTE

SOURCE

REDUCTION

&

MANAGEMENT

REVIEW ACT

OF 1989

Document Availability

One complimentary paper copy may be requested by contacting the Office of Pollution Prevention and Technology Development (OPPTD) as noted below. A nominal charge is made for additional paper copies.

SB 14 Publications can also be printed from the OPPTD website at <http://www.dtsc.ca.gov/PollutionPrevention>. If this website cannot be reached go to http://www.dtsc.ca.gov and click on Pollution Prevention from the list of sources: Contacting OPPTD.

Acknowledgments

Throughout the implementation of the Hazardous Waste Source Reduction and Management Review Act of 1989, OPPTD received comments and suggestions from a variety of individuals and groups, including private citizens, small and large corporations, environmental associations, trade associations, academia, consulting firms, and local, state and federal agencies. OPPTD sincerely appreciates your interest and participation in the development and implementation of this unique and innovative program.

Disclaimer

The Guidance Manual does not supersede the Hazardous Waste Source Reduction and Management Review Act of 1989 or its implementing regulations. Generators or those who prepare documents for generators should read the Act and the regulations before using this guidance manual to prepare any source reduction document.

Contacting OPPTD

If you have questions or comments regarding this manual, the Hazardous Waste Source Reduction and Management Review Act of 1989, the regulations, or the Source Reduction Unit, you may contact OPPTD by

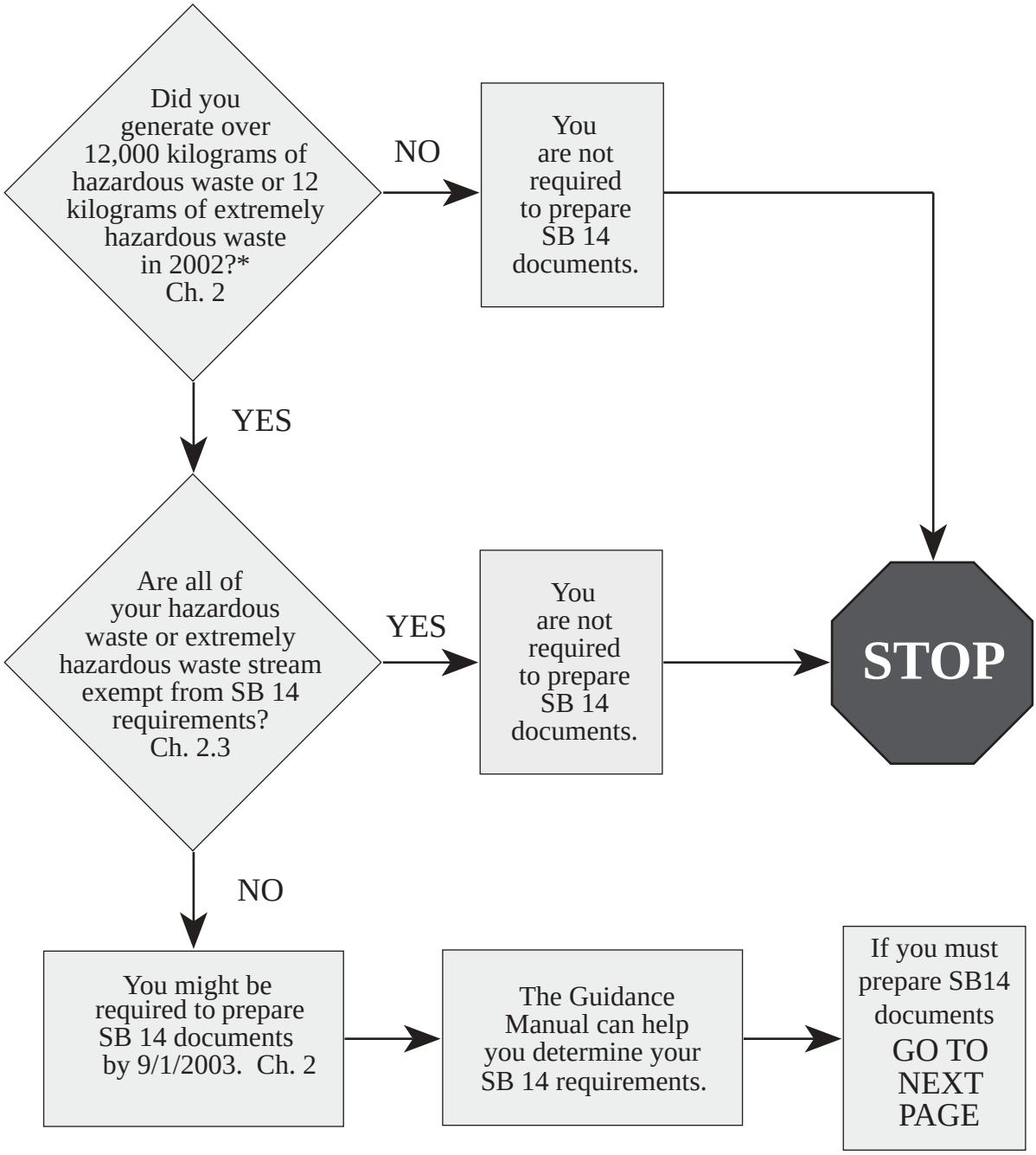
MAIL Department of Toxic Substances Control
Office of Pollution Prevention and Technology Development
Source Reduction Unit
P. O. Box 806
Sacramento, CA. 95812-0806

TELEPHONE 916.322.3670

FAX 916.327.4494

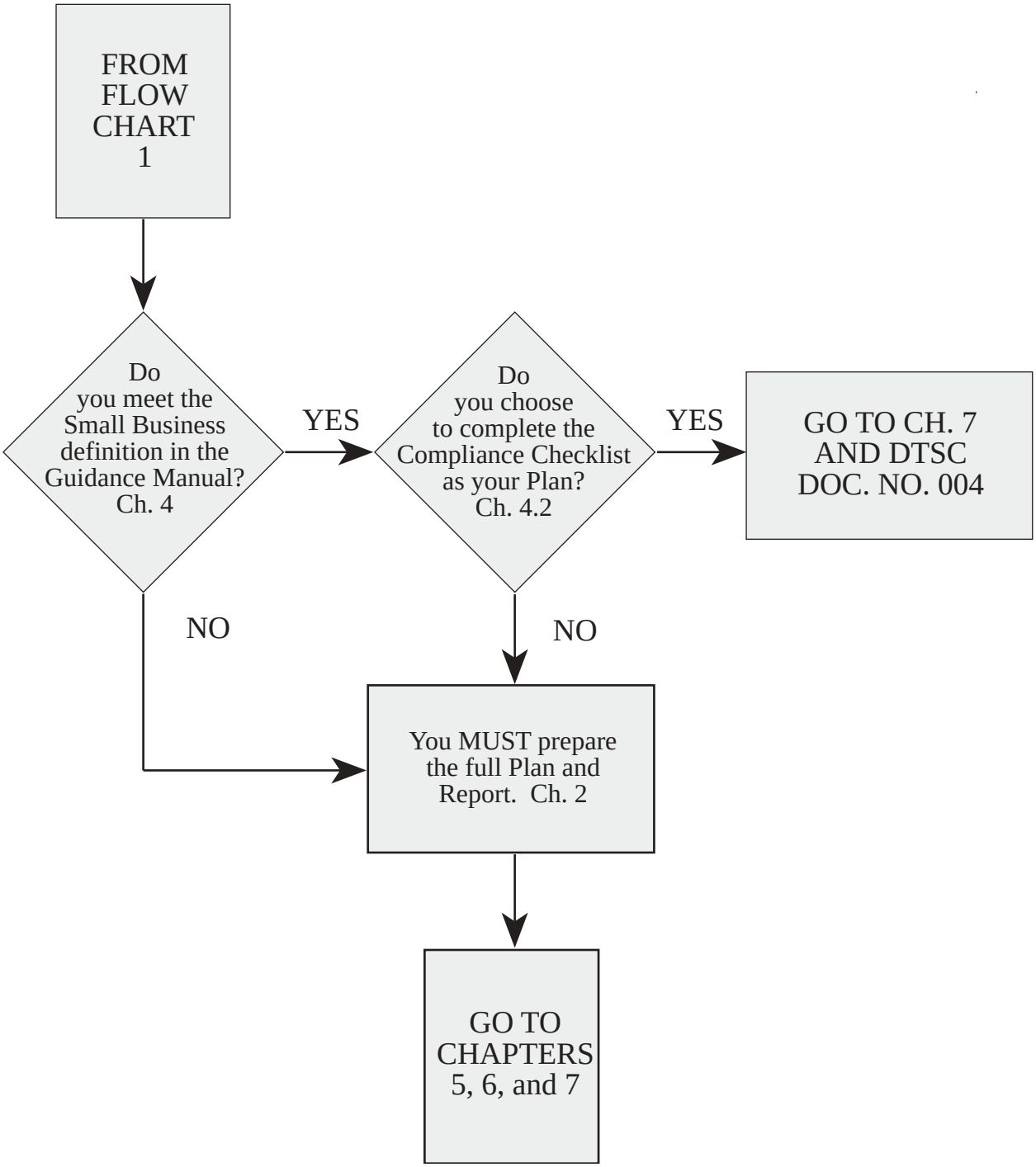
EMAIL Send your questions about complying with SB 14 to <sb14@dtsc.ca.gov>.
Send requests for OPPTD publications listed in Appendix E to
<opptddoc@dtsc.ca.gov>.

SB 14 Guidance Flowchart



***Exempt wastes can affect this decision chart.** Consult Chapters 2.3 and 5.5 of the Guidance Manual to adjust for these wastes. **This chart is for guidance purposes only.** Consult the Guidance Manual to confirm SB 14 applicability to your waste stream.

SB 14 Guidance Flowchart



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Preface

SB 14 enables businesses to document their source reduction planning activities. The foundation behind SB14 is the belief that generators will voluntarily carry out feasible source reduction procedures that save the company money. SB14 does not require businesses to carry out actual procedures that are not technically and economically feasible. Experience has shown that an effective source reduction planning program must involve everyone in the company from top management leadership to the daily operations of the plant personnel.

Sometimes companies hire a consultant to conduct their source reduction audit and prepare the required SB 14 documentation. This approach reduces the opportunity for the participation of plant personnel, those who ultimately will be working with the selected source reduction procedures. A better approach involves the plant personnel in developing the best source reduction method for their area of the plant and ultimately benefiting from the actual procedures. The role of a consultant would be to help this employee-based evaluation. This path follows the proverb, "If you give a man a fish, you feed him for a day. If you teach a man to fish, you feed him for a lifetime."

Effective source reduction audits involve the same tools and strategies used to continuously improve business products and services. Quality-based source reduction planning provides an opportunity to eliminate a production defect, remove a manufacturing inefficiency, or improve a product. Intimately involving more company employees in planning ingrains more of the resulting source reduction ethics into the corporate culture. This will ensure not only the selection of appropriate procedures, but their continued improvement and most important, an ongoing company-wide source reduction approach to business operations.

Chapter 1 Introduction

1.1 About SB 14

The goals of the Hazardous Waste Source Reduction and Management Review Act of 1989 (commonly referred to as SB 14) are to:

(1) reduce the generation of hazardous waste at its source,

(2) reduce the release to the environment of chemicals that have adverse and serious health or environmental effects, and

(3) document hazardous waste management information and make that information available.

SB 14 also encourages recycling where source reduction is not feasible or practicable. Where source reduction or recycling of hazardous waste is not feasible, the waste should be treated in an environmentally safe manner to minimize the present and future threat to human health and the environment.

The Department of Toxic Substances Control (DTSC) adopted regulations to carry forward the intent and mandate of SB 14. The regulations provide generators the flexibility to use their knowledge of their own operations and procedures to reduce hazardous waste generation and prevent the release of pollutants to the environment. The regulations specify the format for documenting a careful review and evaluation of potential source reduction measures, rather than the waste management actions that must be taken.

SB 14 and the Hazardous Waste Source Reduction and Management Review Act of 1989

Senate Bill (SB) 14 was introduced by former Senator David Roberti to add source reduction planning and reporting requirements for generators subject to the Hazardous Waste Control Law. The new source reduction requirements would appear as Article 11.9, under Chapter 6.5, Division 20 of the Health and Safety Code. SB 14 named Article 11.9 the "Hazardous Waste Source Reduction and Management Review Act of 1989." SB 14 was approved by former Governor George Deukmejian on October 1, 1989, and was chaptered by former Secretary of State March Fong Eu as Chapter 1218, Statutes of 1989.

Although SB 14 refers to the bill, state officials implementing the hazardous waste source reduction program and generators who must comply with the law commonly refer to the Hazardous Waste Source Reduction and Management Review Act of 1989 and its corresponding regulations as "SB 14."

1.2 Required SB 14 Documents

A generator who is subject to SB 14 must prepare documents that describe the source reduction program the generator has developed and is implementing. For the reporting year 2002, the following documents must be prepared by September 1, 2003:

1. Source Reduction Evaluation Review and Plan (Plan)
2. Hazardous Waste Management Performance Report (Performance Report)
3. Summary Progress Report (SPR)

The generator must send the completed SPR to the DTSC Office of Pollution Prevention and Technology Development (OPPTD) on or before September 1, 2003.

The generator must retain the Plan, Performance Report, and SPR on-site, and have the documents readily available for on-site review by DTSC, a local agency or the public.

The **Plan** is a forward looking document and must include an estimate of the quantity of hazardous wastes generated, an evaluation of potential source reduction approaches, a timetable for implementing selected source reduction measures, and a four-year numerical goal. The Plan must also address the predicted effectiveness of selected measures at reducing hazardous waste and releases to all environmental media (the air, land and water). **A generator who is a small business may choose to complete OPPTD's industry-specific checklists, Waste Audit Studies or Compliance Checklist in place of the Plan.** OPPTD developed the Compliance Checklist as an alternative format of the Plan for smaller businesses that have inadequate technical and financial resources for obtaining information and assessing source reduction methods.

The **Performance Report** is a retrospective document and must include an assessment of the effect on waste generation of each waste management approach implemented since the baseline year, including source reduction, recycling and treatment. The Report can serve as a way for the generator to share with the public all of the positive efforts to improve the management of hazardous waste at the generator's site.

The **Summary Progress Report** summarizes the result of implementing the source reduction measures identified in the generator's previous Plan and the amount of reduction that the generator anticipates will be achieved by the implementation of source reduction selected in the current Plan.

1.3 About the Guidance Manual

The Office of Pollution Prevention and Technology Development (OPPTD) developed the Guidance Manual to serve as a reference for hazardous waste generators preparing the source reduction documents required by SB 14. The topics presented in the Guidance Manual follow the general order of the SB 14 regulations. The Guidance Manual will help the reader determine if they must comply with SB 14 and, if so, guide them in preparing a Plan, Performance Report, and SPR. Each major chapter references the corresponding SB 14 regulation.

In addition to addressing the regulatory requirements specified by SB 14, the Guidance Manual contains additional information to help and inspire those who are preparing source reduction documents. Suggestions, example formats, and stories of successful source reduction measures are placed within shaded boxes to indicate that the information is not a requirement of SB 14. OPPTD hopes that these suggestions and examples make the process of preparing source reduction documents easier, reduce the number of errors, and increase the success of implementing source reduction.

Appendices to this manual contain the following information which may be useful during the preparation of source reduction documents:

A. SB 14 law

B. SB 14 regulations

C. List of Standard Industrial Classification (SIC) codes

D. List of California Waste Codes

E. List of publications available from OPPTD

F. List of local Unified Program Agencies includingCertified Unified Program(CUPAs), designated agencies, and participating agencies.

G. Completeness Lists to help track the preparation and completeness of source reduction documents

New to this edition of the Guidance Manual are SPR Tips (example shown on right). The purpose of the SPR Tips is to assist generators in completing their SPR by indicating where requirements are found in the Plan and Performance Report.

Look for these tips throughout this Guidance Manual. They provide helpful information for completing your SPR

1.4 To Obtain SB 14 Documents

Publications for SB 14 and other OPPTD topics are available by contacting OPPTD at (916)322-3670. See Appendix E for a complete list of publications available from OPPTD. SB 14 Publications can also be printed from the OPPTD website at <http://www.dtsc.ca.gov/PollutionPrevention>. If this website cannot be reached, go to http://www/dtsc/ca.gov and click on Pollution Prevention from the list of sources.

1.5 Completeness Reminders

If you are required to prepare SB 14 documents, and you have completed the documents for the reporting year 2002, did you remember to:

- Review the Appendix G Completeness Lists to verify document compliance?
- Include a Technical Certification as detailed in Chapter 5 and 6?
- Include a Financial Certification as detailed in Chapter 5 and 6?

Your Plan and Performance Report are incomplete without the technical and financial certifications.

1.6 Submittal Reminders

If you are required to prepare SB 14 documents, did you remember to:

- Prepare a Summary Progress Report as detailed in Chapter 7?
- Submit your Summary Progress Report to DTSC by September 1, 2003?

You are not in compliance with SB14 unless you prepare a Summary Progress Report, and submit it to DTSC.

A Source Reduction Success - Children's Hospital Los Angeles

Children's Hospital Los Angeles (CHLA) has been operating since April 1, 1901 and is a 318-bed licensed acute care pediatric hospital. The facility supports one of the largest educational programs of any pediatric institution in the country. The CHLA operates schools of Physical Therapy, Medical Technology, and X Ray Technology. Because of the research facilities on campus, CHLA has larger and more diversified hazardous waste streams than other area hospitals.

Children's Hospital Los Angeles continues to implement innovative source reduction measures for all of their waste streams. In general, chemical purchases have steadily declined in the past five years while research and patient loads have increased. The following are a few examples of source reduction measures implemented at their hospital.

- Analysis and evaluation was done to assess how oils, lab chemicals, and solvents entered the industrial wastewater clarifier. Analysis showed chemical residues from the labware cleaning process entering the wastewater system. All excess waste in the labware was put through the cleaning systems with disregard to chemicals ending up in the clarifier. The clarifier had to be pumped and cleaned monthly with hot water and bleach to reduce hydrocarbon buildup. In fiscal year 1994-95, a program was initiated to train personnel in the maintenance of the cleaning system, use of the proper receptacles for the collection and disposal of chemical wastes, and use of the autoclave for cleaning and sterilization of labware.

  In midyear 1995, hydrocarbon-reducing enzymes were introduced into the clarifier system to reduce hydrocarbons and alleviate the need for to pump and clean the clarifier monthly. No capital outlay was needed, pumping costs were reduced by $1950 per month, and contaminated wastewater entering the POTW was reduced by 46,541 pounds per year.
- All laboratory euthanasia now uses carbon dioxide instead of ethyl ether. This input substitution has improved worker safety and reduced the reporting of extremely hazardous substances. In addition, there is a substantial cost difference between chemicals.
- Mercury thermometers, blood pressure cuffs, and related instruments/devices were replaced with non-mercury thermometers, and electronic/chemical piezometric devices. Replacement of mercury units with new electronic devices took place over a long period to ensure product manufacturers could provide equipment that was suitable for use in the pediatric setting. Electronic devices for blood pressure and thermometer reading are comparable in cost to instruments containing mercury because they do not have high disposal costs. In addition, the electronic devices do not pose a hazard to patients and workers.

Chapter 2 Applicability

2.1 Applicability Thresholds

SB 14 applies to a generator that, by site, routinely generates, through ongoing processes and operations, more than 12,000 kilograms of hazardous waste in a reporting year, or more than 12 kilograms of extremely hazardous waste in a reporting year.

The generator must sum the total hazardous waste generated at his/her site during the reporting year then subtract any wastes that are exempted, not routinely generated, or excluded per recycling law. If the total remaining wastes exceed either SB 14 threshold, the generator must prepare the following documents by September 1, 2003:

Threshold Equivalents

12,000 kg = 26,400 lbs
12,000 kg = 13.2 tons
12,000 kg = 3,100 gallons
12 kg = 26.4 lbs

1) Source Reduction Evaluation Review and Plan (Plan), for reporting year 2002

2) Hazardous Waste Management Performance Report (Performance Report) for reporting year 2002

3) Summary Progress Report (SPR) for reporting year 2002

The generator must also send the completed SPR to OPPTD on or before September 1, 2003. The Plan and Performance Report must be maintained at the site and made available for review upon request.

To determine the relevance of SB 14 to a specific site, the generator should understand the terms used in SB 14, identify wastes generated at the site that are excluded from SB 14, collect data on the weight of hazardous wastes and extremely hazardous wastes generated at the site during the reporting year, and be familiar with operations at the site.

2.2 Terms and Definitions

The generator of a waste must determine if the waste is a **hazardous waste** or **extremely hazardous waste**. Sections 25115 and 25117 of the Health and Safety Code define extremely hazardous waste and hazardous waste, respectively. Section 66262.11 of Title 22, California Code of Regulations (CCR), provides the steps a generator must follow to determine if the waste is a hazardous waste or extremely hazardous waste.

Baseline year means either of the following, whichever is applicable:

1) For a generator's initial Performance Report, the baseline year is the calendar year, selected by the generator, for which substantial data is available on hazardous waste generation, on-site management, or off-site management. However, the generator may select the current reporting year as the baseline year for the initial Performance Report.
2) For all subsequent Performance Reports, the baseline year is the reporting year of the immediately preceding Performance Report. For example, if the generator was required to prepare SB 14 documents for 1998, the baseline year for the 2002 Performance Report would be 1998.

Reporting year means the calendar year immediately preceding the year in which a source reduction document is to be prepared. For source reduction documents due September 1, 2003, the reporting year is calendar year 2002. The generation of hazardous waste can fluctuate from year to year. However, under SB 14, a generator considers only hazardous waste generated during the reporting year when determining if the applicability threshold is exceeded.

Routinely generated waste includes:

1) Hazardous and extremely hazardous wastes that result from ongoing processes or operations,
2) Hazardous wastes generated from regularly scheduled maintenance or production activities performed less frequently than once a year.

Site is defined in section 25205.1(h) of the Health and Safety Code, and means "the location of an operation which generates hazardous wastes and which is noncontiguous to any other location of these operations owned by the generator." Noncontiguous is a key word. If two operations are touching and owned by the same person, the operations are on one site.

A Simple Method for Determining Applicability

Ask yourself the following questions to help determine if SB 14 applies to your site. Do not include exempted wastes, wastes not routinely generated, or excluded wastes.

1. Are total manifested waste quantities greater than SB 14 thresholds? "Yes" means you may be subject to SB 14.
2. Do you pretreat more than 3,100 gallons of hazardous aqueous wastes on-site under tiered permit authorization prior to discharge? "Yes" means you may be subject to SB 14.

If the answer to both 1 and 2 above is "no," then ask the following question.

3. Is the total waste quantity in 1 and 2 above greater than SB 14 thresholds? "Yes" means you may be subject to SB 14.

NOTE: Refer to Section 2.3 of this chapter to determine how exemptions or exclusions may apply to your facility.

2.3 Exempted Waste Streams

DTSC exempts a waste stream from the requirements of SB 14 (but not from the management requirements of other Articles of Title 22, CCR) if the waste has no source reduction opportunities or is not routinely generated. A generator does not include an exempted waste stream when calculating the total weight of hazardous waste generated at a site to determine SB 14 applicability. Exempted waste streams include:

- Motor vehicle fluids and motor vehicle filters
- Lead acid batteries
- Household hazardous wastes, wastes from household collection events, and wastes separated at community landfills
- Waste pesticides and pesticide containers collected by county agricultural commissioners
- Spent munitions and ordinance
- Decommissioned utility poles
- Oil generated from decommissioned refrigeration units
- Mercury relays and low-level radioactive tubes generated from removal of telephone equipment.
- Lighting wastes including ballasts and fluorescent tubes.
- Waste from site cleanup and mitigation activities, including remedial investigations
- Samples and evidence from enforcement actions
- Asbestos
- Polychlorinated biphenyls (PCBs)
- Formation fluids and solids from oil, gas, and geothermal exploration and field development
- Demolition waste/major renovation waste
- Waste generated from emergency response actions
- Waste generated from laboratory scale research
- Medical waste

If you have any questions regarding SB 14 exempted waste streams, please contact OPPTDs Source Reduction Unit at (916) 322-3670. A generator may request OPPTD to exempt a hazardous waste stream with no practicable source reduction from the requirements of SB 14. OPPTD considers requests on a case by case basis. However, the documentation required to demonstrate that no practicable source reduction exists for a hazardous waste stream may be extensive.

Collect Data on Hazardous Waste

Data on hazardous waste manifested off-site, as well as hazardous wastewater effluents, may come from a variety of sources, including:

- Hazardous waste manifests
- Biennial hazardous waste generator reports
- Wastewater flow records
- SARA Title III Section 313 environmental release reports
- Environmental audit reports
- Permits (RCRA Part B, National Pollution Discharge Elimination System (NPDES), etc.)
- Lab reports/characterization data
- Chemical inventory and usage records
- NPDES monitoring reports
- Internal waste tracking system records
- Production records

These sources of information are helpful in calculating the total hazardous waste generated. They also provide valuable information such as hazardous characteristics and current (off-site as well as on-site) management methods.

Another way for a large business to accumulate information or to supplement its collection is to prepare a brief questionnaire for key departments, such as production, maintenance, and service, which are known or suspected to generate waste. A review of operator logs or production records may also provide useful information in calculating quantities of hazardous waste.

2.4 Additional Considerations

- When determining applicability of SB 14 at a site, a generator must include the weight of aqueous hazardous waste streams before pretreatment and discharge to a sewer.
- In determining the applicability of SB 14, hazardous waste streams and extremely hazardous waste streams must be evaluated separately for comparing these waste streams to their respective applicability thresholds.

- A generator may manage wastes by a variety of strategies, such as transport off site for recycling, treatment or disposal; on-site treatment; or on-site recycling.
- California Hazardous Waste Law excludes some recyclable materials from classification as a waste, provided the conditions in Section 25143.2, of the Health and Safety Code are satisfied.
- The method of managing a hazardous waste on-site may affect its inclusion in determining the applicability of SB 14 to the site. For example, some hazardous waste recycling processes do not currently require a permit from DTSC, i.e., they are exempt from tiered permitting requirements. However, the material may be designated a hazardous waste and captured by SB 14. A generator should carefully read section 25143.2 of the Health and Safety Code to determine if a recyclable material is designated a hazardous waste, and therefore, subject to inclusion in the SB 14 applicability determination.If you have any questions regarding recycling exclusions, call DTSC's Waste Identification and Recycling section at (916) 327-4499.
- The residual material from the treatment of hazardous waste received from an off-site facility is not a waste that has been generated on-site by the generator. Therefore, the generator does not include the residual materials when determining if SB 14 is relevant to the site.

Organize, Sort, and Display Data

Once you have collected all the hazardous waste data for your facility for Reporting Year 2002, estimate your annual hazardous waste production by waste stream. Screen the data to determine which waste streams are exempted or not routinely generated. When estimating the weights of each waste stream, use appropriate conversion factors to document each annual total in pounds. Table 1 below is a tool one could use to organize, screen, and quantify their hazardous waste generation. It also provides concise documentation of your data collection effort and your decision process regarding the wastes that were included in (or excluded from) your Plan.

The table includes a "waste type" column, which is designated as hazardous waste, extremely hazardous waste, nonhazardous waste, or waste exempted by regulation. The Table also includes a "frequency" column, which is designated as routinely generated or not routinely generated. Waste type and frequency are the two criteria used to sort the data. A column for the California Waste Code (CWC) is included to group the wastes. A list of CWCs can be found in the Appendix *D*.

Table 1. Waste Generation Data
(Example format - not required by SB 14)

Site Name: _____ Reporting Year: _____

Waste Stream	Waste Type [1]	Freq. [2]	CWC [3]	Weight (lbs)

[1] **Waste Type Codes**
H = hazardous waste
E = extremely hazardous waste
W = nonhazardous waste
X = waste exempt by 22CCR67100.2(c)

[2] **Frequency Codes**
R = routinely generated
N = not routinely generated

[3] **CWC =** California Waste Code

Chapter 3 Compliance Deadlines

3.1 Dates to Remember

SB 14 requires generators to prepare SB 14 documents on or before September 1, 1991 and every four years thereafter, when the generation of hazardous waste or extremely hazardous waste exceeds the corresponding applicability threshold during a reporting year. For the most recent four year period, the required SB 14 documents are the Plan, Performance Report, and Summary Progress Report (SPR). The three documents are to be prepared for the 2002 reporting year.

3.2 Mandatory Summary Progress Report Submital

The requirement to prepare and submit an SPR to OPPTD applies to all generators subject to SB 14. The SPR must be submitted to OPPTD by September 1, 2003. Details on preparing and submitting an SPR are provided in Chapter 7.

3.3 New Owner

If a generator acquires a site that has an existing set of source reduction documents, the new owner has six months to amend the documents. If the new owner does not amend the documents within six months, the existing documents, including the selected source reduction measures and numerical goal, will continue to apply to the site. The new owner is also responsible for the implementation of the selected measures according to the existing implementation schedule.

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A Source Reduction Success - Gold Seal Plating

Gold Seal Plating is a company of 18 to 36 employees that provides nickel, copper, silver, and gold plating of jewelry and flexible circuits. Gold Seal Plating performs rack and barrel plating and operates both manual and automatic plating lines.

Gold Seal Plating began targeting its hazardous rinsewaters for source reduction in 1980. In late 1995, Gold Seal Plating reached the goal that many metal plating facilities are trying to achieve- zero water discharge. Gold Seal Plating did not become a zero water discharge facility quickly. They achieved this status through a systematic approach that included commitment, good research and planning, some common sense, good employee relations, and trial and error.

Gold Seal Plating began its source reduction approach by first considering the low cost, common sense approaches. These approaches included:

- improved bath maintenance
- fog rinsing above heated process baths
- reuse of drag-out solutions in heated baths
- reuse of spray rinses in rinse tanks
- electrocleaner purification
- countercurrent rinsing
- electrowinning to recover precious metals from rinse tanks

By incorporating these changes, the metals loading into the rinsewater was reduced by 90% and the rinsewater flow rate was reduced from 15 gallons per minute (gpm) to 6 gpm. Gold Seal Plating wanted to further improve its rinsewater quality without requiring the use of more city water, additional wastewater treatment, or increasing its discharge to the sewer. Gold Seal Plating installed an ion exchange system to remove the contaminants from the rinsewater, thereby providing high quality deionized water for reuse in the rinse system. Costs per 1000 gallons of rinsewater treated was reduced from $29 (on-site treatment) to $6-8 (ion exchange). With the use of an evaporation system for the ion exchange regenerant, Gold Seal Plating was able to cap its sewer in January, 1996.

Gold Seal Plating's systematic approach to source reduction had many advantages. The reduction in metals loading and rinsewater flow allowed Gold Seal Plating to select a more cost-effective ion exchange system. Gold Seal Plating installed a 15 gpm ion exchange system that allows improvements in rinse water quality and increases in rinsewater use due to production changes. Without taking the first steps, Gold Seal Plating would have purchased a larger, more costly ion exchange system. The higher capital cost of the larger ion exchange system, in addition to the cost of waste treatment and maintenance, would have limited expansion of the system to accommodate increases in production.

For its source reduction accomplishments, Gold Seal Plating received awards from the California Water Environment Association, East Bay Municipal Utility District, Peninsula Conservation Center Foundation, Santa Clara County, and the U.S. Congress. In addition, Gold Seal Plating's recognition as an environmentally-conscious business has increased its customer base beyond California.

Chapter 4 Options for a Small Business, Multiple Sites, or a Complex Site

4.1 Definition of "Small Business"

The definition of "small business" used by SB 14 is taken from section 11342 of the California Government Code and states:

(1) "Small business" means a business activity in agriculture, general construction, special trade construction, retail trade, wholesale trade, services, transportation and warehousing, manufacturing, generation and transmission of electric power, or a health care facility, unless excluded in paragraph (2), that is both of the following:

(A) Independently owned and operated.

(B) Not dominant in its field of operation.

(2) "Small business" does not include the following professional and business activities:

(A) A financial institution including a bank, a trust, a savings and loan association, a thrift institution, a consumer finance company, a commercial finance company, an industrial finance company, a credit union, a mortgage and investment banker, a securities broker-dealer, or an investment adviser.

(B) An insurance company, either stock or mutual.

(C) A mineral, oil, or gas broker; a subdivider or developer.

(D) A landscape architect, an architect, or a building designer.

(E) An entity organized as a nonprofit institution.

(F) An entertainment activity or production, including a motion picture, a stage performance, a television or radio station, or a production company.

(G) A utility, a water company, or a power transmission company generating and transmitting more than 4.5 million kilowatt hours annually.

(H) A petroleum producer, a natural gas producer, a refiner, or a pipeline.

(I) A business activity exceeding the following annual gross receipts in the categories of:

(i) Agriculture, one million dollars ($1,000,000).

(ii) General construction, nine million five hundred thousand dollars ($9,500,000).

(iii) Special trade construction, five million dollars ($5,000,000).

(iv) Retail trade, two million dollars ($2,000,000).

(v) Wholesale trade, nine million five hundred thousand dollars ($9,500,000).

(vi) Services, two million dollars ($2,000,000).

(vii) Transportation and warehousing, one million five hundred thousand dollars ($1,500,000).

(J) A manufacturing enterprise exceeding 250 employees.

(K) A health care facility exceeding 150 beds or one million five hundred thousand dollars ($1,500,000) in annual gross receipts.

4.2 Options For a Small Business

A generator that meets the definition of a small business and satisfies the SB 14 applicability criteria outlined in Chapter 2, must also comply with SB 14. In place of the Plan, a small business may choose to complete any one of the following set of documents:

- Hazardous Waste Source Reduction Compliance Checklist (Compliance Checklist)
- Industry-specific Waste Audit Study plus Sections 1, 3, 4, 5 and 6 from the Compliance Checklist
- Industry-specific Hazardous Waste Minimization Checklist and Assessment Manual plus Sections 1, 3, 4, 5 and 6 from the Compliance Checklist

Small businesses may find that completing the forms in the Compliance Checklist or appropriate Waste Audit Study easier than completing a Plan. OPPTD developed the Compliance Checklist for use by companies that are not addressed by the industry-specific Waste Audit Studies and Hazardous Waste Minimization Checklist and Assessment Manuals. These documents may be used in place of the Plan by small businesses that have inadequate technical and financial resources for obtaining information and assessing source reduction methods. The Compliance Checklist, Waste Audit Studies, and Checklist and Assessment Manuals listed in Appendix E are available from OPPTD. To obtain SB 14 documents and contact OPPTD, refer to the subheading in Chapter 1.

As an alternative to preparing a Performance Report required by SB 14, a small business may use its most recent biennial generator report (BGR), as required by section 66262.41 of the California Code of Regulations, as the Performance Report required by SB 14.

Like all generators subject to SB 14, small businesses must prepare a Summary Progress Report (SPR) and submit it to OPPTD by September 1, 2003.

4.3 Options For Multiple Sites

A generator that owns or operates multiple sites with similar processes, operations, and waste streams may prepare a single, multiple-site Plan, Performance Report, and SPR addressing all of the sites. A generator that chooses this option may avoid unnecessary duplication of work. The generator must also keep a copy of the Plan, Performance Report, and SPR at each site.

4.4 Options For a Complex Site

A generator that owns a complex site with multiple operations that are managed as independent businesses may choose to prepare a separate Plan, Performance Report, and SPR for each operation that is independently managed. An example of a complex site is a site where hazardous wastes generated at each operation are managed by a separate environmental coordinator or production unit. A generator that chooses this option may avoid the burden of coordinating activities between businesses or operations that would otherwise act independently.

A Source Reduction Success - The Martin Luther King Jr./Charles R. Drew Medical Center

The Martin Luther King Jr./Charles R. Drew Medical Center (KDMC) is a direct result of the historic Watts Riots of 1965. Following the riots, former Governor Pat Brown appointed John A. McCone to head a commission to study the causes of the riots. The McCone Commission Report identified the absence of accessible quality health care as a major contributor to the civil disturbance.

KDMC is a short-term general acute care community teaching facility, a Level I Trauma Center, and a Level III Newborn Intensive Care Unit. The facility has 14 approved clinical residency training programs, and operates a Paramedic Base Station and emergency heliport. The following are a few of the source reduction methods implemented by the hospital.

- Maintenance workers manually washed paint guns in the paint shop with thinner. Manual washing released thinner into the surrounding work space and generated thinner waste. A Herkules Paint Gun Washer and Recycler that uses compressed air was installed in the paint shop in mid-1994. Practically all the used thinner is now captured as liquid waste. The washer effectively cleans the paint gun and reuses the thinner for additional washes. Thinner waste was reduced by 28%, or 500 pounds per year. The capital cost was $975 and operation and maintenance costs are $100 a year.
- Laboratory technicians manually dipped slides with blood smear into the stains. The manual process takes 12 to 15 minutes. A Wescor Aerospray Hematology Slide Stainer was installed in January 1995. The automatic slide stainer sprays the slides with the stains, minimizing the generation of alcohol waste. The machine can replace the manual staining process for most slides with the exception of bone marrow slides. The machine takes less than 10 minutes. The slide stainer costs $6000 and has annual recurring costs of $600. Annual savings in chemicals and waste disposal are $930 and $50, respectively. The use of the automatic slide stainer is estimated to save a minimum of 1 person-hour per day. Since the Hematology Laboratory operates 365 days per year, the automatic stainer saves approximately 365 person-hours per year or $9125 per year.
- Employees used or serviced mercury sphygmomanometers daily, and a number of mercury spills resulted from breakages. Replacement of mercury sphygmomanometers in the patient care areas with TycosR Aneroid Sphygmomanometers was completed in 1994. The aneroid sphygmomanometers are accurate and do not contain mercury. The estimated hazardous waste source reduction was 75%, or 150 pounds per year.

Chapter 5 The Plan

5.1 Before Preparing the Plan

Generators subject to SB 14 shall prepare a plan with sufficient detail to convey an understanding of the source reduction evaluation and review and analysis performed (California Code of Regulations, Title 22, Section 67100.5).

SB 14 specifies that a Plan must be understandable and contain sufficient information to convey an understanding of the facility's review and evaluation of potential source reduction measures. The Plan can consist of narratives, photographs, illustrations, figures and data to meet the requirements of a Plan established by SB 14. The level of detail will vary from site to site. However, the Plan should contain sufficient information to enable an outside reader to understand the overall flow of materials between the processes at the site, identify the processes generating hazardous waste, and understand the facility's review, evaluation and selection of potential source reduction measures.

Planning for Successful Source Reduction

A thorough evaluation of source reduction measures is the result of a combination of many factors, including a **commitment** by management, **awareness** among employees, and **effort**. The establishment and implementation of a successful source reduction program requires a proper plan and a **systematic approach**. There is no one right way to begin. However, successful source reduction programs possess several common elements.

1) Source reduction is part of the **core value structure** of a business, corporation, or institution, regardless of the size of the facility. It is intrinsic in the company's philosophy, practices, and goals. Qualitative source reduction goals are among the measurements of success. The source reduction policy and goals are documented in writing, distributed to all employees, and **considered in day-to-day decision-making.**

2) **Management supports** the source reduction philosophy and objectives and **commits the resources** to carry out the source reduction program.

3) A person or team is authorized to manage, direct, incite, and assume responsibility for the operation and maintenance of the source reduction program.

5.2 General Site Information

The Plan must contain the following general site information:

- Name of the site
- Location of the site including street address, city, county, and zip code. In the case of multiple sites, provide the street address, city, county, and zip for each site location.

- Telephone number
- Identification Number
- Four-digit Standard Industrial Classification (SIC) code applicable to activities at the site. SIC codes are developed by the federal government for characterizing sites by their business activity. A list of SIC codes is in Appendix C. Use the one code that best describes the operations occurring at the site.

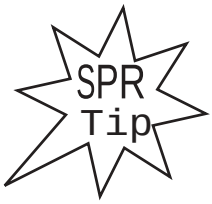
General Site Information

A generator collecting background information before beginning the source reduction evaluation should keep in mind which information must be included in the Plan. Any discovered or generated narratives, data or figures may be useful when preparing the Plan.

If a generator owns multiple sites with similar operations and chooses to prepare a multisite Plan, only one SIC code should be used to represent all sites. However, any site that contains different operations, different processes or different waste streams can not be covered by the multisite Plan. A separate Plan must be completed for each site not covered by the multisite Plan.

If a generator owns a complex site with multiple operations managed as independent businesses and chooses to prepare a separate Plan for each operation, an SIC code must be provided for each operation.

- Brief description of the type of business or activity conducted at the site.
- Length of time the company has been in business at the present site. The length of time is meant to relate to the age of the equipment or production line. The potential for source reduction may correlate to the age of the production line.
- Major products manufactured or services provided. If the generator is concerned that the products or services may not be understood by someone reading the Plan, the generator may provide a description of the end use or application of the products.



Section 4 of the SPR requests generators to provide their North American Industry Classification System (NAICS) Code. Go to http://www.census.gov/epcd/www/naics.html or http://www.naics.com to determine your facility's NAICS Code.

- Number of employees
- A general description of the site operations, with corresponding block diagrams focusing on quantity and type of raw materials, hazardous waste, and final products produced at the site. Examples of block diagrams are shown in Figures

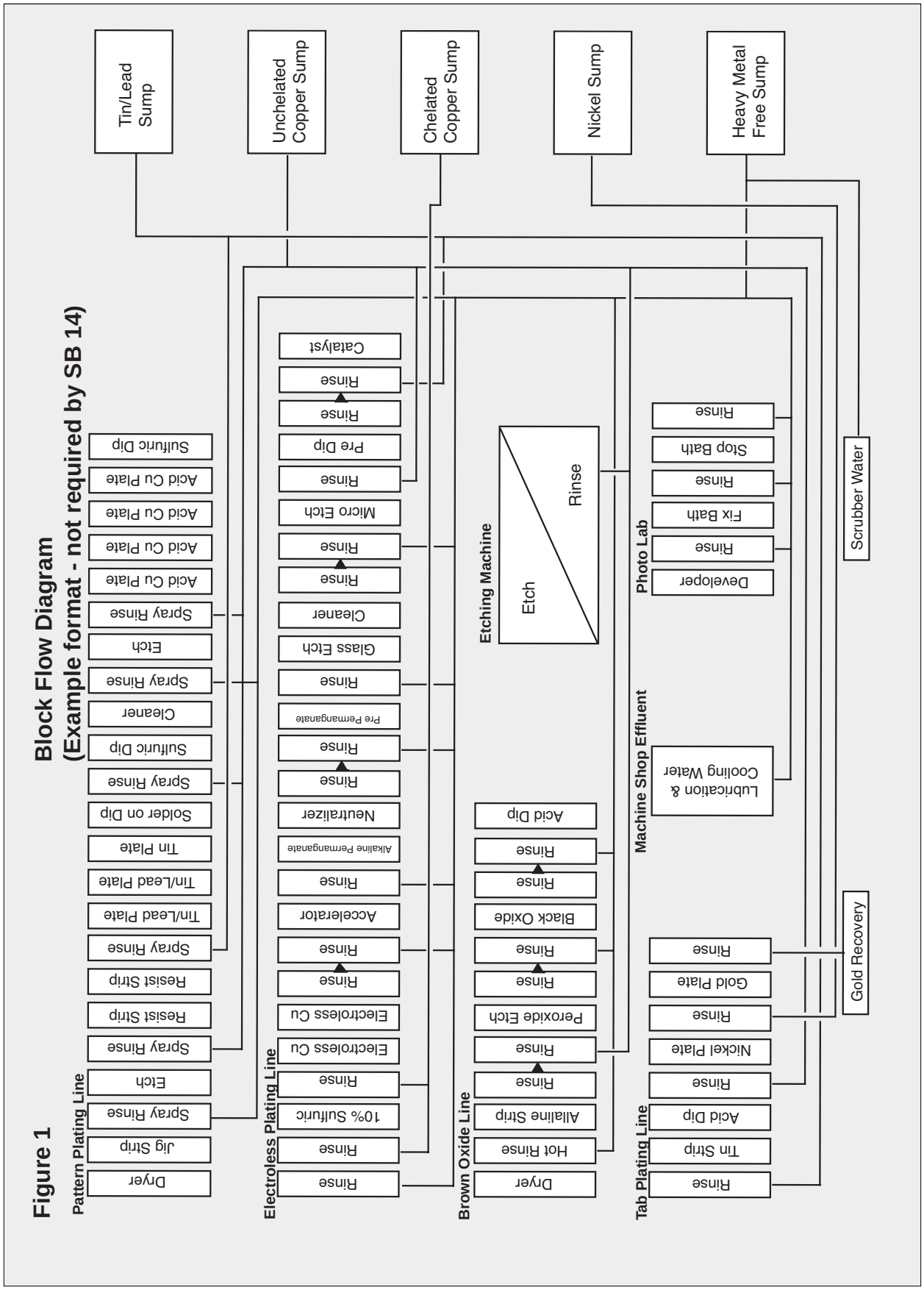
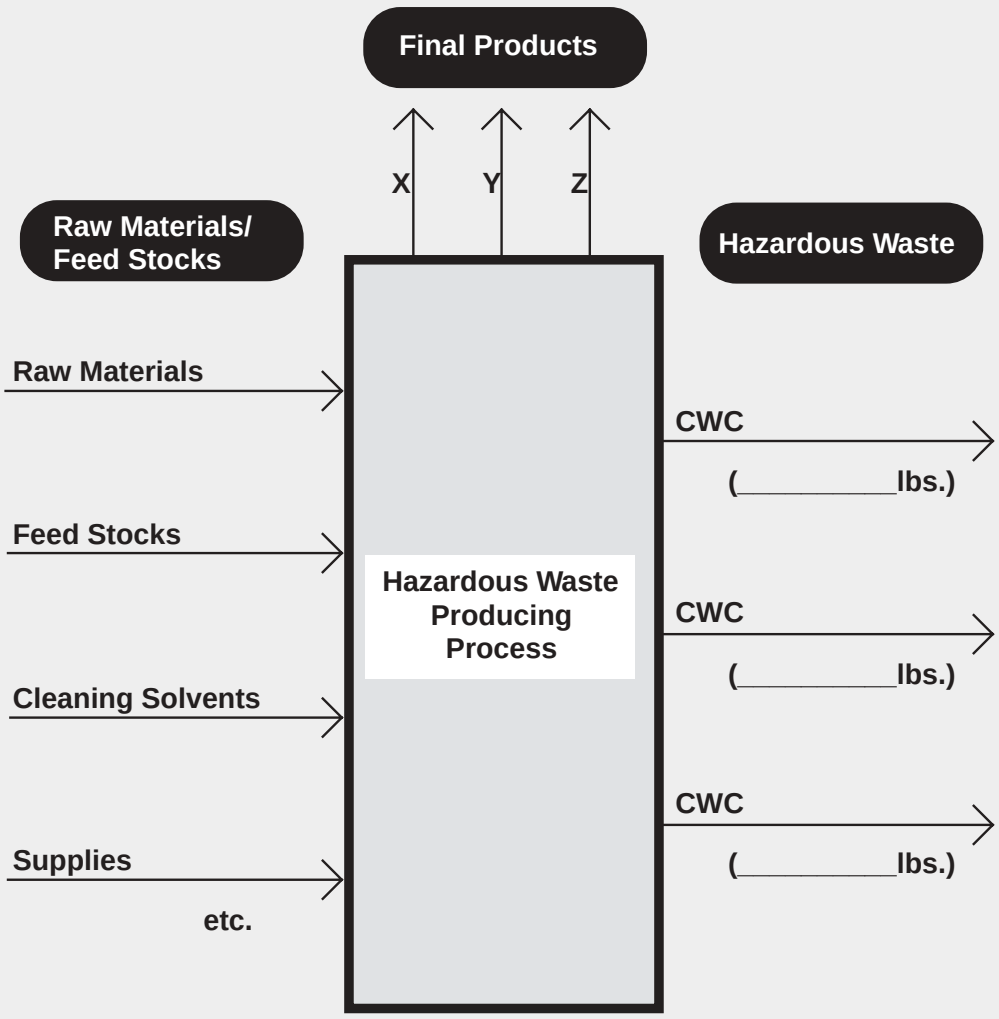


Figure 1
Block Flow Diagram
(Example format - not required by SB 14)
Tin/Lead Sump
Unchelated Copper Sump
Chelated Copper Sump
Nickel Sump
Heavy Metal Free Sump
Pattern Plating Line
Dryer
Jig Strip
Spray Rinse
Etch
Spray Rinse
Resist Strip
Resist Strip
Spray Rinse
Tin/Lead Plate
Tin/Lead Plate
Tin Plate
Solder on Dip
Spray Rinse
Sulfuric Dip
Cleaner
Spray Rinse
Etch
Spray Rinse
Acid Cu Plate
Acid Cu Plate
Acid Cu Plate
Acid Cu Plate
Acid Cu Plate
Sulfuric Dip
Electroless Plating Line
Rinse
Rinse
10% Sulfuric
Rinse
Electroless Cu
Electroless Cu
Rinse
Rinse
Accelerator
Rinse
Alkaline Permanganate
Rinse
Neutralizer
Rinse
Pre Permanganate
Rinse
Glass Etch
Cleaner
Rinse
Rinse
Micro Etch
Rinse
Pre Dip
Rinse
Rinse
Catalyst
Brown Oxide Line
Dryer
Hot Rinse
Alkaline Strip
Rinse
Rinse
Peroxide Etch
Rinse
Rinse
Black Oxide
Rinse
Rinse
Acid Dip
Etching Machine
Etch
Rinse
Tab Plating Line
Rinse
Tin Strip
Acid Dip
Rinse
Nickel Plate
Rinse
Gold Plate
Rinse
Rinse
Machine Shop Effluent
Lubrication & Cooling Water
Photo Lab
Developer
Rinse
Stop Bath
Rinse
Fix Bath
Rinse
Rinse
Scrubber Water
Gold Recovery

Figure 2. Block Flow Diagram
(Example format - not required by SB 14)

Site Name: _____ **Reporting Year:** _____

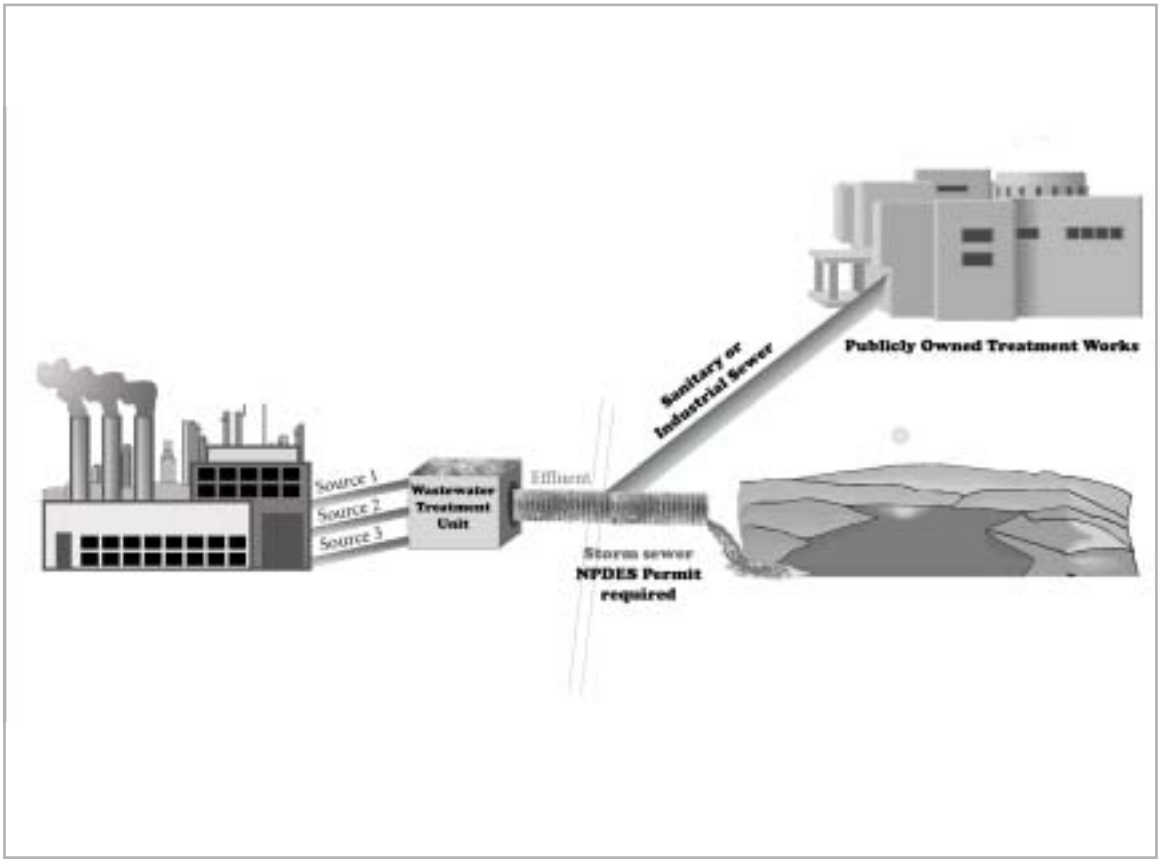


1 and 2. Diagrams help communicate information without requiring pages of narrative description. Note that the diagrams are not meant to be a mass balance of the use of materials, production of products, and generation of waste occurring at the site.

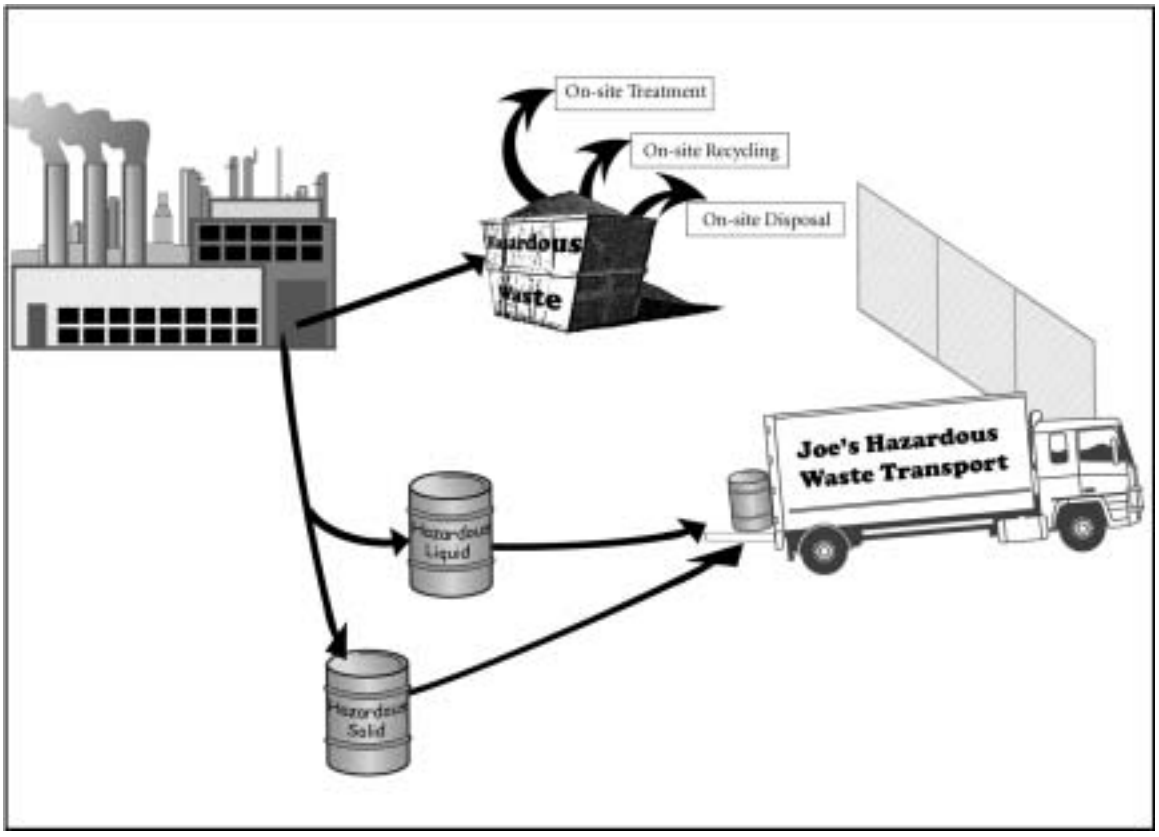
5.3 Identify Major Waste Streams

Your Plan does not need to address source reduction for every individual waste stream. You are only required to address the major waste streams, those waste streams that account for more than 5% of your facility's total hazardous waste generation. However, determining what is a major waste stream requires more than a simple 5% calculation because major waste streams can fall into one of three categories. For the purposes of this Guidance Manual only, hazardous waste streams are labeled as Categories A, B and C to help instruct generators through the process of calculating their major waste streams. Category A, Category B, and Category C are neither statutory nor regulatory terms.

- **Category A: hazardous wastes that are processed through an on-site wastewater treatment unit prior to discharge to a publicly owned treatment works (POTW) or to a receiving water under a National Pollution Discharge Elimination System (NPDES) permit.**



- **Category B: all other hazardous wastes, including waste shipped off site for treatment, recycling or disposal, manifested waste, and waste that is treated or disposed on site.**



[Note: In previous editions of this guidance manual, the term aqueous waste was used to describe hazardous wastes that fall under Category A; and nonaqueous waste was used to describe wastes that fall under Category B.]

- **Category C: wastes that are classified as extremely hazardous wastes.**

Use the following four-step procedure to calculate major hazardous waste streams from your operations.

Step 1 – Quantify all hazardous wastes

Identify the total amount of all hazardous waste generated by your operations in the reporting year. Review hazardous waste manifest records, operational records from on-site hazardous waste treatment, recycling records, and disposal records. (You may have already done this to determine if you must comply with SB 14 – see Chapter 2.) Use this information to develop a list similar to that shown in Example 5-1. When developing this list, be sure to:

1. Include hazardous wastes that fall under Category A. The quantity that you list should be the quantity prior to on-site treatment. If your treatment unit processes hazardous waste from more than one source, list each hazardous waste source separately, as shown in Example 5-1.
2. Include all hazardous wastes, liquid and solid, that fall under Category B. These must include wastes that are shipped off site for treatment, recycling or disposal, as well as hazardous wastes that are treated, recycled, and/or disposed on site.
3. Exclude those hazardous wastes that are not generated routinely and those that are excluded or exempt from SB 14 (See Chapter 2).
4. Exclude hazardous waste residuals (i.e., filter cake, sludge) that are generated from the on-site treatment of Category A wastes.
5. Exclude nonhazardous waste streams that are processed on site in a wastewater treatment unit, but be sure to include resultant residuals if they are hazardous.
6. Convert all waste streams to the same weight units (i.e., pounds, kilograms).
7. List Category A wastes and Category B wastes separately, and sum each category of waste stream as shown in Example 5-1.

Enter the Category A subtotal for 2002 in Section 15 of your SPR, and the Category B subtotal for 2002 in Section 16 of your SPR.

If your operations produce extremely hazardous wastes (Category C), calculate major waste streams for extremely hazardous wastes on a separate table.

Example 5-1: Add up all SB 14-applicable Hazardous Waste Streams

Hazardous Waste Streams*	CWC	Quantity (units)	Weight in Pounds	Processed in Wastewater Treatment Unit?
Rinse Water	132	85,600 gal.	713,900	*Yes*
Plating Bath	792	1,000 gal.	8,340	*Yes*
Category A Subtotal			722,240	
Paint Waste	331	10,000 lbs.	10,000	*No*
Solvent	214	1,500 lbs.	1,500	*No*
Drums/ Containers	513	5,400 lbs.	5,400	*No*
Contaminated Rags	551	500 lbs.	500	*No*
Category B Subtotal			17,400	
Total			**739,640**	

* Include routine wastes only. Do not include non-routine, exempted, and excluded wastes.

Step 2 – Calculate major waste streams for Category A wastes

SB 14 requires that hazardous waste streams that are processed in a wastewater treatment unit that discharges to a POTW or to receiving water under an NPDES permit (Category A) be differentiated from those that are not (Category B) when calculating major waste streams. Use the following procedure to make this differentiation:

- Divide the quantity of each Category A waste stream by the total quantity of both Category A and B waste streams, and then multiply the result by 100 to get a percentage. (See Example 5-2)
- If applicable, calculate this percentage for each source (or hazardous waste stream) that contributes to the influent to a single wastewater treatment unit.

Major Category A waste streams are those that exceed 5% of the total hazardous waste generated at the site, and must be evaluated for source reduction in the Plan. Smaller waste streams that are less than 5% are referred to as **minor waste streams**. A generator may choose to include minor waste streams in their Plan, although it is not required under SB 14.

Planning Beyond SB 14

Although SB 14 requires a generator to conduct a detailed source reduction evaluation of only major hazardous waste streams, SB 14 does not prohibit a generator from conducting an evaluation for minor or nonhazardous waste streams and including their analyses in the Plan. However, if a generator chooses to expand the scope of the Plan beyond the major hazardous waste streams, those wastes should be clearly identified so reviewers can focus on SB 14 wastes for compliance purposes.

Step 3 – Calculate major waste streams for Category B wastes

To calculate major waste streams for Category B wastes, simply divide the quantity of each Category B waste stream by the subtotal of all Category B waste streams, and then multiply the result by 100 to get a percentage (See Example 5-2). Major waste streams are those that exceed 5% of the total hazardous waste listed under Category B. These waste streams must be evaluated for source reduction in the Plan.

Step 4 – Calculate major waste streams for extremely hazardous wastes

Step 4 applies only to facilities that, in a reporting year, routinely generated more than 12 kilograms (26.4 pounds) of extremely hazardous waste as defined in California Code of Regulations, Title 22, Sections 66261.107 through 66261.113. Major waste streams for extremely hazardous wastes must be calculated separately from waste streams that fall under Categories A and B.

Start by listing and quantifying all extremely hazardous waste generated at your site during the reporting year. Prepare tables similar to those presented in Example 5-1 and 5-2. Divide each extremely hazardous waste stream by the total amount of extremely hazardous waste. If an individual waste stream is over 5%, it is a major waste stream and must be evaluated for source reduction in your Plan.

Example 5-2: Use Steps 2 and 3 to Calculate Major Waste Streams

Hazardous Waste Stream	*CWC*	*Weight in Pounds*	*Processed in Wastewater Treatment Unit?*	*Percent by Weight*	*Major Waste Stream? (>5%)*
Rinse Water	132	713,900	*Yes*	96% (1)	*Yes*
Plating Bath	792	8,340	*Yes*	1% (1)	*No*
Category A Subtotal		722,240			
Paint Waste	331	10,000	*No*	57% (2)	*Yes*
Solvent	214	1,500	*No*	9% (2)	*Yes*
Drums/ Containers	513	5,400	*No*	31% (2)	*Yes*
Spill Cleanup	551	500	*No*	3% (2)	*No*
Category B Subtotal		17,400			
Total		**739,640**			

(1) Percentage calculated as described in Step 2, using total from Categories A and B (739,640 pounds).
(2) Percentage calculated as described in Step 3, using subtotal from Category B wastes (17,400 pounds).

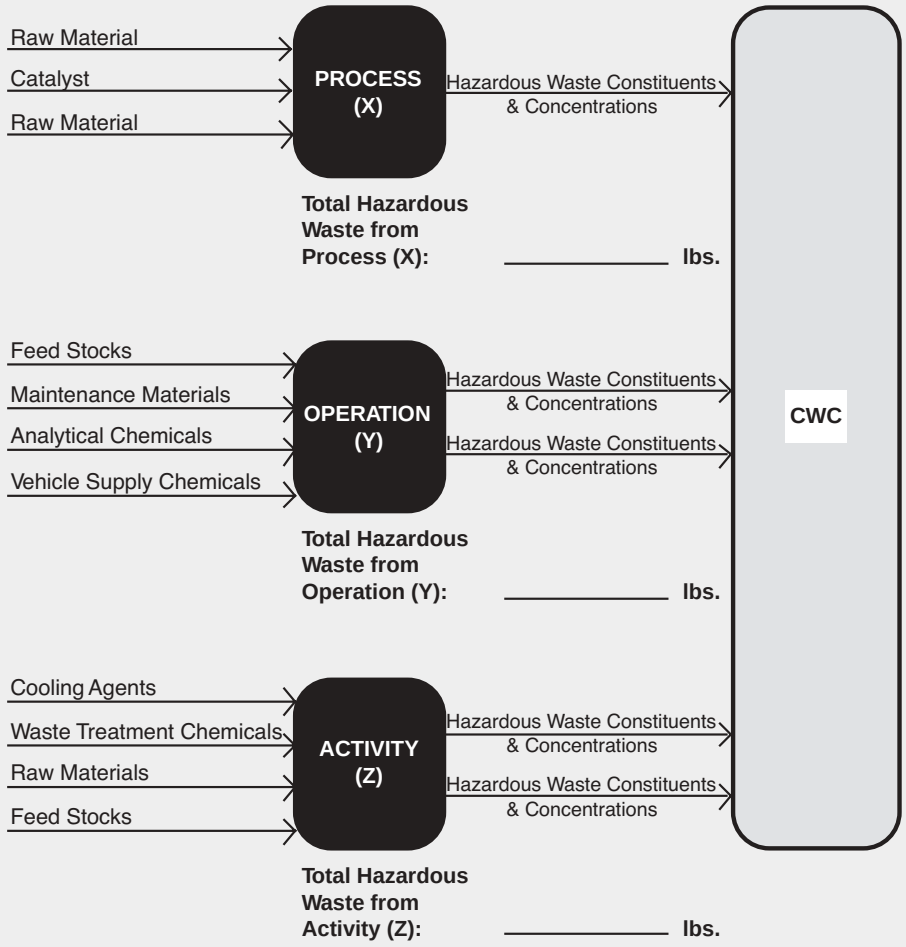
5.4 Information on Major Waste Streams

The Plan must contain the following information for all major hazardous and extremely hazardous waste streams for the current reporting year 2002:

- An estimate of the weight (pounds) of the hazardous waste generated.
- The applicable California Waste Code (CWC) for each major waste stream. The list of CWCs is provided in Appendicx D. The CWC and weight of each major waste stream in Examples 5-1 and 5-2 are recorded in the respective tables.
- The processes, operations and activities generating the wastes, with corresponding block flow diagrams. An example format is suggested in Figure 3.
- Constituents, and their concentrations, which cause the waste stream to be hazardous.

Figure 3. Block Flow Diagram by Major Waste Streams
(Example format - not required by SB 14)

Site Name: _____ **Reporting Year:** _____



Grand Total of Hazardous Waste from (X), (Y) & (Z): _____ lbs.

5.5 Identify and Evaluate Source Reduction Measures

The primary objectives of this phase of the Plan are threefold:

1. To develop and screen source reduction measures, considering at a minimum the five approaches mandated by SB 14. The five approaches are:

    a) Input changes, such as raw material or feedstock changes to reduce, avoid or eliminate the hazardous materials that enter the production process, thereby avoiding the generation of hazardous wastes within the production process.

b) Operational improvements, such as loss prevention, waste segregation, production scheduling, maintenance operations, and overall site management.

c) Production process changes, such as process changes, changes in production methods or techniques, equipment modifications, changes in process operating conditions (i.e., temperature, pressure), process or plant automation, or the return of materials or their components for reuse within existing processes.

d) Product reformulations, such as changes in design, composition or specification of final or intermediate products.

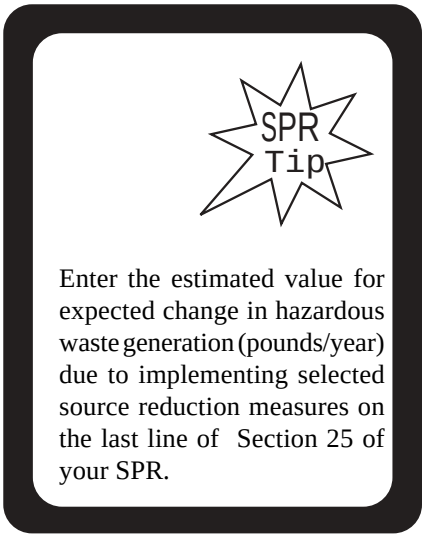
e) Administrative steps, such as inventory control and employee programs.

Administrative steps include good operating practices that apply to the human aspect of conducting day-to-day operations at the facility. These include employee training, incentives, bonuses and other such programs that encourage employees to strive for reducing hazardous waste. The focus should be on preventing the generation of hazardous waste.

2. To conduct a detailed analysis of potentially viable source reduction measures.
3. To set up an implementation schedule for the selected measures.

The generator's evaluation of potentially viable source reduction measures must consider the following seven factors:

1. Expected change in the amount of hazardous waste generated;
2. Technical feasibility;
3. Economic evaluation, such as capital cost, operating cost, waste management cost, return on investment (ROI), breakdown point, avoided cost, pretax payback period, or any other economic comparison method;
4. Effects on product quality;
5. Employee health and safety implications;
6. Permits, variances, compliance schedules or applicable state local and federal agencies; and
7. Releases and discharges.



If a specific factor does not apply in the evaluation, the Plan must identify that factor as not applicable (N/A). Any pertinent information, such as the constituents of wastes streams or the concentrations of constituents, needed to evaluate and implement source reduction measures must be included in the Plan.

How Many Source Reduction Measures Must I Identify?

SB 14 stipulates that the five approaches discussed above shall be considered when developing potential source reduction measures for evaluation. However, it does not stipulate the number or type of measures that must be generated. Each approach may yield several or no measures, depending on the nature of the business or activity of a particular generator. Operational improvements and administrative steps are broad approaches that can be applicable to many generators, regardless of size of operation or type of industry. The other three approaches may not have such uniform applicability. While one type of industry may have more use of input changes, others may propose measures based on production process changes.

Methods to Produce Source Reduction Measures

As you try to develop source reduction measures, ask these questions over and over: "Why is this waste generated? Why are we doing this operation in this manner? Why are we using these hazardous ingredients?" Then ask: "Are there any substitutes we could use which would produce less waste or be less hazardous?" For example, some companies have made substantial reductions in the quantity of solvent wastes by eliminating unnecessary cleaning steps in their processes.

Large companies may benefit from establishing a committee that meets regularly to brainstorm and use group decision techniques for identifying source reduction methodologies. In order to encourage creativity and independent thinking, seek input from people involved in the waste-generating operation, from the process engineer to the line employee, and from the purchasing, product development and marketing departments.

Sources of Information on Source Reduction Measures

Generators should, on their own, look for sources of background information on source reduction methods. The very first source should be in-house input from employees, operators, supervisors, engineers, plant managers, accountants, bookkeepers, finance managers and others with firsthand knowledge of the company's operations. Other general sources of information are:

- USEPA publications, databases, and technical reference centers
- State and local environmental agencies' publications, bibliographies, and technical assistance
- Published literature, technical magazines, trade journals, government reports, and research briefs
- Equipment vendors and chemical suppliers
- Consultants
- Trade associations

Screen Alternatives Before Evaluating

You need consider only potentially viable alternatives. If the list of candidate source reduction measures is extensive, you may screen the measures before beginning any formal evaluation. The screening procedure can range from an informal review to quantitative decision-making. This review serves to eliminate suggested measures that are marginal or inferior without a detailed and more costly technical and economic feasibility study. However, the Plan must include a rationale for rejecting each alternative that you do not analyze in detail (Title 22, section 67100.5(o), CCR).

Optional Source Reduction Matrix

The evaluation of potentially viable source reduction measures required by the regulations can be documented in the Plan by use of a matrix for recording scores and ranks, as shown in Table 2. This method provides a means for you to record the weight assigned to the important factors that affect waste management at your site. The matrix provides a quick visual representation of the factors affecting various source reduction measures.

This method involves three steps. First, you determine what the important factors are in terms of the source reduction program goals and the overall policies specific to your site. While these factors may differ widely between industries in number and type, you must consider the factors mandated by SB 14 (see Section 5.5 of this Guidance Manual). Examples of optional factors you may wish to include are:

- Reduction in waste hazard (toxicity, reactivity, etc.)
- Previous success within the organization
- Previous success in other industries
- Implementation period
- Ease of implementation

Second, you must evaluate each factor listed. The rationale for each factor must be given. Optional weights can be assigned to each of the factors in relation to their importance. If you assign a weight to a factor, a rationale for each weight you assign must be included in your Plan. If the factors are ranked according to importance, the rationale for the importance of each factor should also be given.

Last, rate each proposed source reduction measure for each of the factors. Recycling and treatment alternatives can be rated at the same time. The score of each source reductionmeasure for a particular factor is multiplied by the weight assigned to that factor. Determine a measure's overall rating by the sum of the weighted scores for all factors.

Note that you are not required to use a matrix. It is proposed as a convenience to you and not meant to be a constraint. In some cases where a limited number of potentially viable measures exist, a matrix might not improve the narrative presentation of your feasibility analysis on each source reduction measure evaluated in your Plan.

Table 2 Matrix for Measure Evaluation (Example format - not required by SB 14)

Site Name: _____

Reporting Year: _____

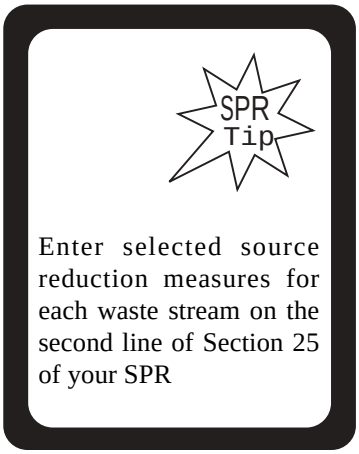
CWC: _____

Approaches	Measures	Evaluation Criteria: I Change in Haz. Waste		II Technical Feasibility		III Economic Evaluation		IV Effects on Product Quality		V Employee Health & Safety Implications		VI State, Local, Fed. Law Compliance		VII Releases & Discharges		VIII Other		TOTAL Sum (R x W)
		weight (w) =		w =		w =		w =		w =		w =		w =		w =		
		R	R x W	R	R x W	R	R x W	R	R x W	R	R x W	R	R x W	R	R x W	R	R x W	
Input Changes																		
Operational Improvements																		
Production Process Change																		
Product Reformulations																		
Administrative Steps																		
Other																		

5.6 Information on Selected Source Reduction Measures

The Plan must identify each source reduction measure selected for implementation as a result of the evaluation. The Plan must describe each selected measure in detail, using narratives, photographs, figures and/or data. The description of each selected measure must be in sufficient detail to convey an understanding that would allow other generators to transfer the measure to a site with similar processes, operations or procedures. At a minimum, the seven evaluation factors must be addressed in a narrative where appropriate. The Plan must also address the predicted effect that selected measures would have on the capacity and efficiency of related processes and operations.

If a generator considers information in the Plan a trade secret or proprietary, the pages containing that information should be labeled accordingly. See Chapter 8 for more information on labeling and reporting trade secret information.



5.7 Evaluate Multimedia Effects

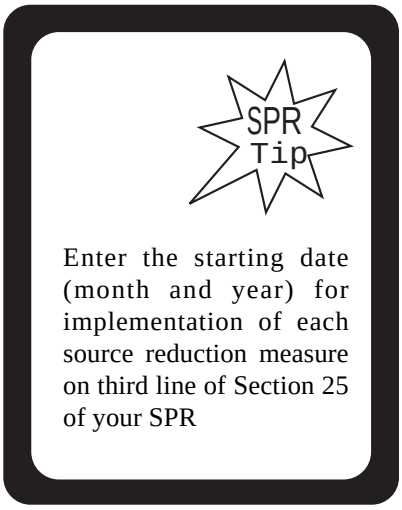
SB 14 specifies that implemented source reduction measures can not merely transfer the waste load from one environmental medium (air, land, or water) to another. The Plan must include an evaluation and, to the extent practicable, a qualification of the effects of the chosen alternative on all three environmental media.

5.8 List Rejected Measures

The Plan must include a list of source reduction measures that were rejected before undertaking the detailed evaluation. The rationale for their rejection must be stated. Also, if some waste streams were considered to not have viable source reduction alternatives, the Plan must include a brief description of the good-faith effort to identify source reduction alternatives.

5.9 Schedule Steps Toward Implementation

The Plan must include a timetable for implementation of all selected source reduction measures. The timetable should include, at a minimum, starting and finishing dates for implementation. A simple action plan with key dates or milestones would be desirable for lengthy or complex projects.



5.10 Set a Numerical Goal

The Plan must specify a numerical goal that spans the four years from the first day of the calendar year when the Plan must be prepared to the last day of the next reporting year.

For example, the numerical goal in the Plan that must be prepared by September 1, 2003 covers January 1, 2003 through December 31, 2006.

The four-year numerical goal is not simply a reflection of the generator's intended source reduction under SB 14. It is an estimate of the source reduction that the site could optimally strive to achieve over the four-year period. The goal, a single numerical percentage, reflects the business' source reduction vision and commitment. The goal must reflect waste stream reductions due only to source reduction and exclude effects due to production or economic influences.

Calculate the four-year numerical goal (as percent reduction) using the following equation:

$$\frac{\text{Total weight of hazardous and extremely hazardous waste reduced at the site if source reduction practices are optimized}}{\text{Total weight of hazardous and extremely hazardous waste generated if source reduction measures are not implemented at the site}} \times 100$$

5.11 Certify the Plan-Technical and Financial Certification

The Plan must have a technical certification and a financial certification. The technical certification of the Plan can be completed by any one of the following people:

- an engineer who is registered in California and has demonstrated expertise in hazardous waste management;
- an environmental assessor who is registered in California and has demonstrated expertise in hazardous waste management; or
- an individual in your company who is responsible for the processes and operations of the site, regardless of any professional registrations.

The person performing the technical certification of the Plan must certify all of the following:

- The Plan identifies and addresses all of the major waste streams at the site.
- The five approaches to source reduction have been considered.
- The Plan fully explains the decision process used to determine which measures to implement, including the rationale for rejecting the measures that will not be implemented. The Plan includes an implementation schedule.
- The Plan does not merely shift hazardous waste from one environmental medium (air, water, or land) to another by increasing emissions or discharges to air, water, or land.

The following is an example of a Technical Certification Statement:

TECHNICAL CERTIFICATION STATEMENT FOR THE PLAN
(Example format - not required by SB 14)

I certify this Source Reduction Evaluation, Review and Plan meets all of the following requirements:

(1) The review and plan addresses each hazardous waste stream identified pursuant to section 67100.5(h), Title 22 of the California Code of Regulations.

(2) The review and plan addresses the source reduction approaches specified in section 67100.5(j), Title 22 of the California Code of Regulations.

(3) The review and plan clearly sets forth the measures to be taken with respect to each hazardous waste stream for which source reduction has been found to be technically feasible and economically practicable, with timetables for making reasonable and measurable progress, and documents the rationale for rejecting available source reduction measures.

(4) The review and plan does not merely shift hazardous waste from one environmental medium to another environmental medium by increasing emissions or discharges to air, water, or land.

_____ _____

name signature

_____ _____/_____/_____

The intent of the financial certification for the Plan is to ensure that the "person who is capable of committing the financial resources necessary to implement the Plan" is aware of its contents and the necessary resource commitment. The financial certification of the Plan must be completed by any one of the following people who is capable of committing financial resources necessary to implement the source reduction measures:

- the owner;
- the operator;
- the responsible corporate officer; or
- an authorized individual.

The person completing the financial certification in the Plan must sign and date the following language that is required by SB 14:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for making false statements or representations to the Department, including the possibility of fines for criminal violations."

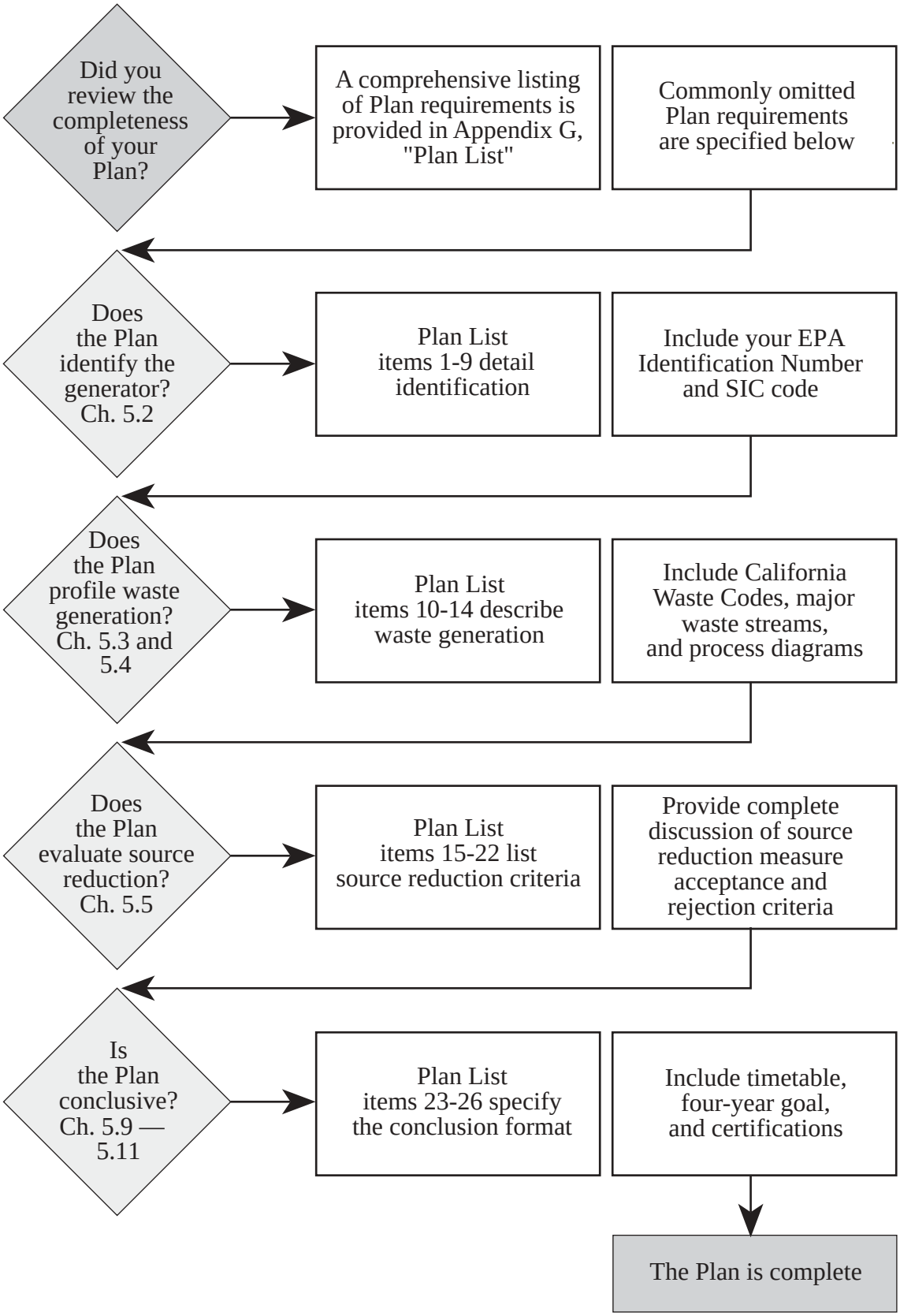
5.12 Update the Plan

Following the completion of a Plan, a generator may decide not to implement a selected source reduction measure if the generator determines that the selected measure is not technically feasible or economically practicable. Also, a generator may decide not to implement a selected source reduction measure if attempts to implement the measure reveal that the measure would result in, or has resulted in, any of the following:

- An increase in the generation of hazardous waste;
- An increase in the release of hazardous chemicals to other environmental media;
- Adverse impacts on product quality; and
- A significant increase in the risk of an adverse impact to human health or the environment.

The generator's decision to not implement a selected measure does not require any government approvals. However, the generator must amend the Plan within 90 days to reflect the decision to not implement a selected measure. The amendment to the Plan must include proper documentation identifying the rationale for the decision. The amendment can be in the form of an addendum, dated and signed by the individual qualified to technically certify the plan, and incorporated into the Plan by reference.

5.13 SB 14 Plan Completeness Flowchart



Chapter 6
The Performance Report

6.1 Before Preparing the Report

Generators subject to SB 14 shall prepare a performance report with sufficient details to convey an understanding of the hazardous waste management approaches used at the site. (California Code of Regulations, Title 22, Section 67100.8).

The Hazardous Waste Management Performance Report (Performance Report) documents a generator's current efforts and effectiveness in managing hazardous waste. The Performance Report includes discussions of the generator's approaches to managing hazardous waste including source reduction, on-site and off-site recycling, treatment and disposal. It can serve as a way for the generator to share with the public all of the positive efforts to improve the management of hazardous waste at the generator's site.

The Performance Report should contain sufficient detail to convey an understanding of the hazardous waste management approaches used at the site. The use of narratives, photographs, illustrations, figures and data is encouraged. Keep in mind that the public has the authority to review your Performance Report.

A generator who is a small business may use the most recent USEPA biennial generator report (BGR), as required by section 66262.41 of the California Code of Regulations, as the Performance Report required by SB 14.

6.2 General Site Information

The Performance Report must contain the following general facility information:

- Name of the site.
- Location of the site including the street address, city, county and zip code for the site. In the case of multiple sites, identify all sites by street address, city, county and zip for each site location.
- Four-digit Standard Industrial Classification (SIC) code applicable to activities at the site. A list of SIC codes is in Appendix C. Use the one code that best describes the operations occurring at the site. The SIC code should be the same as the code used for the Plan.

If a generator owns multiple sites with similar operations and chooses to prepare a multisite Performance Report, only one SIC code should be used to represent all sites. However, any site that contains different operations, different processes or different waste streams can not be covered by the multisite Report. A separate Report

must be completed for each site not covered by the multisite Report.

If a generator owns a complex site with multiple operations managed as independent businesses and chooses to prepare a separate Performance Report for each operation, an SIC code must be provided for each operation.

6.3 Baseline Year and Reporting Year

The Performance Report focuses on the major hazardous waste streams identified in the Plan and compares the quantity of hazardous waste generated during the reporting year (2002) with the quantity of hazardous waste generated during the baseline year (1998).

Baseline year means any of the following, whichever is applicable:

1) For a generator's initial Performance Report, the baseline year is the calendar year, selected by the generator, for which substantial data is available on hazardous waste generation, on-site management, or off-site management; however, the generator may select the current reporting year as the baseline year for their initial report.
2) For all subsequent reports, the baseline year is the reporting year of the immediately preceding Performance Report. For example, if the generator was required to prepare SB 14 documents for reporting year 1998, the baseline year for the Performance Report due in 2003 would be 1998.

Reporting year refers to the calendar year immediately preceding the year in which the Performance Report is to be prepared. For the Performance Report due September 1, 2003, the reporting year is 2002.

If a generator, who is preparing their initial Performance Report for reporting year 2002, selects the current reporting year as the baseline year, the information required for each waste stream shall be provided for the current reporting year only.

Chronicle Your Site's Waste Management History

As each new set of source reduction documents is prepared every four years, generators may lose their accumulated waste management history unless they provide a summary projection of their waste management approaches back to their initial baseline year. In this way, generators will provide an excellent overview of their long-term environmental performance. This can be an important step considering that the source reduction documents may be of interest to local citizens and environmental leaders. One of the original Report objectives was to serve generators as a means for capturing their earliest waste management history so as to demonstrate beneficial past practices

Each new Report must also focus on the latest waste management approaches used over the past four years. Generators should discuss this most recent activity in the greatest detail as it represents their latest progress.

If your facility was not captured under SB 14 in 1998 and your 2002 Performance Report is your initial Performance Report, you are not required to complete Section 24 of the SPR.

6.4 Compare Quantities of Major Waste Streams

For each major waste stream, the Performance Report must contain the following information:

- an estimate, in pounds, of the quantity of hazardous waste generated, and the quantity of hazardous waste managed, both on-site and off-site, **during the current reporting year**.
- an estimate, in pounds, of the quantity of hazardous waste generated, and the quantity of hazardous waste managed, both on site and off site, **during the baseline year**.

An example of a typical format is shown in Table 3.

Table 3. Hazardous Waste Management by Approach
(Example format – not required by SB 14)

Major Waste Stream (1)	CWC	Hazardous Waste Management Approach (2)	Weight, lbs (Baseline Year 1998)	Weight, lbs. (Reporting Year 2002)

1) If a single major waste stream is managed using more than one waste management approach, use additional rows in Table 3 to quantify the weights managed by each approach during the baseline year and the reporting year.

2) "Hazardous waste management approach" means the approach, method, or technique of managing the generation and handling of a hazardous waste. For each major waste stream listed in Table 3, indicate one or more of the following hazardous waste management approaches:
a) source reduction;
b) on-site or off-site recycling;
c) on-site or off-site treatment; or
d) on-site or off-site disposal.

6.5 Describe Waste Management Approaches

"Hazardous waste management approaches" means methods and techniques of controlling the generation and handling of hazardous waste. Approaches include source reduction, on-site and off-site recycling, on-site and off-site treatment, and disposal. For each major waste stream, the Performance Report must contain the following information:

- A description of current hazardous waste management approaches. The current approaches described for the 2002 Performance Report are those approaches implemented during the current reporting year, calendar year 2002.
- The identification of all approaches implemented since the baseline year. If the 2002 Performance Report is the generator's initial Performance Report and the current reporting year is selected as the baseline year, the Performance Report will have met this requirement in the description of current hazardous waste management approaches. If the generator's initial Performance Report was prepared prior to 2003, the 2002 Performance Report must identify all approaches implemented since calendar year 1998.

SPR Section 24, second line requires a description of each source reduction approach implemented since the baseline year.

6.6 Assess the Effect of Waste Management Approaches

For each major waste stream, the Performance Report must contain an assessment of the effect, since the baseline year, of each implemented hazardous waste management approach on each of the following:

- The weight of hazardous waste generated (see "Quantify Source Reduction Achieved" for ideas on how to quantify the effect of source reduction on the weight of hazardous waste generated);
- The properties which cause the waste to be classified as a hazardous waste;
- The on-site management of hazardous waste; and
- The off-site management of hazardous waste.

Enter the value you estimate for quantity of waste reduced on the last line of Section 24 on your SPR.

The assessments should cover any changes in the management of each major hazardous waste stream. The Performance Report should clearly identify the hazardous waste management approach that was implemented, and the impact of that approach on the management of the waste. For example, an approach may change the physical characteristics of the waste, which in turn affects how hazardous waste technicians handle the waste.

Quantify Source Reduction Achieved

For each major waste stream where one or more source reduction procedures have been implemented, estimate the amount of waste that will ***not*** be generated annually due to the implementation of source reduction. The generator must determine the most appropriate method for estimating source reduction achieved, which is to be quantified in pounds per year. The method of determining this value may depend on the type of waste stream, operational factors, business activity, economic factors, and other business- or operation-specific influences. There is no single approach to estimating source reduction achieved that would be appropriate for all facilities. Following are examples that one might consider using to estimate source reduction achieved for each major waste stream:

1. Simple subtraction. Subtract the hazardous waste generated in 2002 from that generated in 1998. This simple subtraction would be best applied to waste streams whose change in quantity was mostly due to the source reduction measures implemented, and not because of other factors, such as changes in business activity. If hazardous waste generation increased from 1998 to 2002 due to increased business activity, simple subtraction would not be the most accurate way to report source reduction achieved.

2. Normalize then subtract. Normalize your hazardous waste generation for 1998 and 2002 using the most appropriate normalization method for your business operations (e.g., pounds of waste per 1000 units). Then subtract the normalized 2002 data from the normalized 1998 data. For example, a metal finisher may consider normalizing their generation of waste plating bath solution based on pounds of spent bath per 100-square-feet of surface area plated. After determining the difference, make the appropriate calculations and assumptions to report the value in terms of pounds per year.

3. Quantify after implementing source reduction. Quantify hazardous waste generation before implementing a source reduction measure to establish an annual baseline number. Then quantify a year's worth of hazardous waste generation data after implementing source reduction and subtract this number from the annual baseline number.

4. Quantify based on normalized data. Use normalization to determine source reduction quantity after implementing a source reduction measure, then use production data to estimate an annual amount. For example, a generator determines that they produced 5 less pounds of a hazardous waste stream for every 1000 widgets produced. They can estimate pounds per year source reduction based on the number of widgets produced in a year.

5. Use percentage decrease. Use the same units of measure to quantify hazardous waste generation before and after implementing a source reduction procedure. Then calculate a percentage that represents the decrease in hazardous waste generation. A pounds per year source reduction amount can be estimated using the percent decrease and an annual hazardous waste total that represents hazardous waste generation prior to implementing the source reduction procedure.

6.7 Describe Factors Affecting Major Waste Streams

For each major hazardous waste stream, the Performance Report must contain a description of factors that have affected hazardous waste generation and management from the baseline year to the reporting year.

The rate of production and amount of hazardous waste generated at a site can change dramatically over time. SB 14 does not penalize a generator for generating more waste. To ensure a fair comparison between the current reporting year and the baseline year, the Performance Report must include a detailed description of factors affecting the generation, on-site management and off-site management of major hazardous waste streams. Factors that can influence generation and management of hazardous waste may include:

1) Changes in business activity (production rate)
2) Changes in waste classification by the government
3) Natural phenomena
4) Other factors that have affected either the quantity of hazardous waste generated or on-site and off-site hazardous waste management requirements.

As mentioned in Section 6.3 of this Chapter, if the Performance Report for reporting year 2002 is the genrator's initial Performance Report, then the generator may also use 2002 as the baseline year.

6.8 Certify the Performance Report

The Performance Report must have a technical certification and a financial certification. The technical certification can be completed by any one of the following personnel:

1) an engineer who is registered in California and has demonstrated expertise in hazardous waste management;
2) an environmental assessor who is registered in California and has demonstrated expertise in hazardous waste management; or
3) an individual in your company who is responsible for the processes and operations of the site, regardless of any professional registrations.

The person performing the technical certification of the Performance Report must certify that the Performance Report identifies the factors that affect the generation, on-site management, and off-site management of hazardous wastes and summarizes the effect of those factors on the generation, on-site management, and off-site management of hazardous wastes.

Following is an example of a technical certification statement:

TECHNICAL CERTIFICATION STATEMENT FOR THE PERFORMANCE REPORT (Optional Format)

I certify this Hazardous Waste Management Performance Report meets the following requirement, as applicable:

(1)The Performance Report identifies factors that affect the generation and on-site and off-site management of hazardous wastes and summarizes the effect of those factors on the generation and on-site and off-site management of hazardous wastes.

_____	_____
name	signature
_____	_____/_____/_____
title	mo / day / year

The intent of the financial certification for the Performance Report is to ensure that the "person who is capable of committing the financial resources necessary to implement the Performance Report" is aware of its contents and the necessary resource commitment. The financial certification of the Performance Report must be completed by any one of the following people who is capable of committing financial resources necessary to implement the source reduction measures:

- the owner;
- the operator;
- the responsible corporate officer; or
- an authorized individual.

The person completing the financial certification in the Report must sign and date the following language that is required by SB 14:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for making false statements or representations to the Department, including the possibility of fines for criminal violations."

A Source Reduction Success - Century Laminators, Inc.

Century Laminators, Inc. is a small (about 140 employees) printed circuit board manufacturer located in Anaheim. Although Century Laminators had already implemented some source reduction opportunities, the structured, systematic approach of SB 14 provided added benefit. The source reduction plan submitted to OPPTD by Mr. Chris Hensley, facility manager, scheduled the following source reduction options for implementation:

- increase concentration of copper in etchant. This would result in an annual savings of $9,200, and reduce waste by 10% (37 tons).
- reduce cleaning schedule. This would result in an annual savings of $7,700, and would reduce sludge production by 2% (1.5 tons/year).
- install automatic flow sensors for rinses. This would result in an annual savings of $8,250, and would reduce the potential for operator error that would increase sludge generation.
- install automatic fluid dispensers (floor cleaner). This would result in an annual savings of $8,850. Operator error had resulted in excess sludge generation due to improper mixing of the floor cleaner.
- install panel sensors on conveyorized processing equipment. This would result in an annual savings of $2,455.
- modify oxide racks to increase drainage efficiency (cost benefit not quantified).
- increase rack drip times. Potential reduction of dragout of 50%.

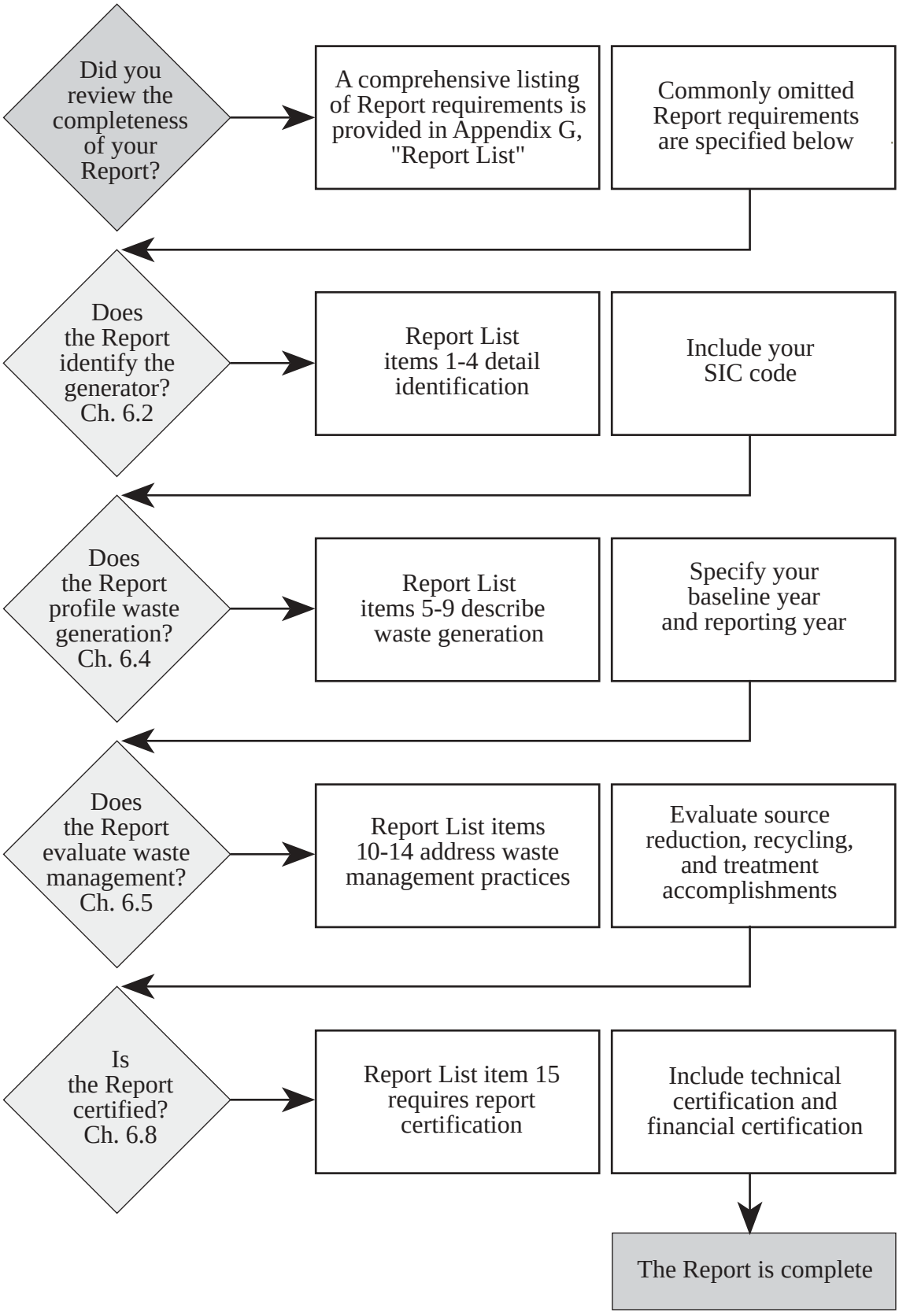
In August of 1998, OPPTD requested follow-up information from Century Laminators, Inc. Mr. Hensley, now the Vice President of Business Development, is enthusiastic about the source reduction planning program. In a letter to OPPTD, he states "The program has in fact been instrumental in changing our thinking in terms of modifying what we currently do, and in evaluating processes, equipment, and chemistries for future use. The modifications that were completed first due to their ease of implementation and low cost were not the greatest opportunities for reduction, but they did provide a smooth transition into the program and were carried out with enthusiasm and precision. These included increased drip times on our oxide line, rack modifications, and the installation of an automatic floor cleaning dispenser."

Century Laminators, Inc.'s manifest data indicate source reduction progress:

Ship Year	Total Tons
1995	525
1996	459
1997	481
1998	283

Century Laminators' 1998 waste showed a 38% decrease from 1996 levels. These figures give us some idea of the effects of Century Laminators' source reduction efforts.

6.9 SB 14 Performance Report Completeness Flowchart



Chapter 7 The Summary Progress Report

7.1 Completing the Summary Progress Report

Generators subject to SB 14, are required to prepare and submit a Summary Progress Report to DTSC by September 1, 2003. SB 14 legislation mandates the submittal starting September 1, 1999, and every four years thereafter. The submittal is done on DTSC Form 1262, provided in this subsection. The form is also available on the DTSC website listed in this chapter.

DTSC Form 1262, "Summary Progress Report" (SPR), now consists of Table 1 and Table 2. In order to simplify the form, this latest edition SPR is a revision of the previous SPR. Revisions include specific instructions that are integrated into Tables 1 and 2. Generators should read all the instructions integrated into the latest SPR form very carefully before completing Tables 1 and 2. **All SB 14 generators, including small businesses, are required to submit the SPR to DTSC by September 1, 2003.**

The SPR requires quantitative data and some narrative description. If you are a generator subject to SB 14, you are required to include this information in your SPR for the period 1998-2002. This is your opportunity to document your source reduction successes over the last four years or longer if information is available.

Table 1 provides for general information and total hazardous waste generation data for 1998 and 2002. Table 1 also requests a brief summary of and comments on your organization's historical source reduction successes and waste management practices. Your comments can also include reuse, recycling, treatment, and disposal activities. If more space is needed for comments, please add a separate page to provide complete information. Since the information requested in Table 1 is for the entire facility, Table 1 is only completed once for each site.

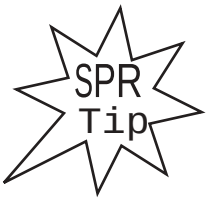
Table 2 addresses accomplishments by specific waste stream, as achieved over the last four year period 1999-2002. This information can be obtained from your 2002 Performance Report. Table 2, Section 25 addresses projections by specific waste stream covering the next four year period, 2003-2006. Use your 2002 Plan to obtain information for Section 25. Since the information required for Table 2 is waste stream specific, a separate Table 2 must be completed for each major waste stream and for each minor waste stream for which a source reduction measure was selected.

Before completing your SPR, please note the following:

- If a generator was required to submit an SPR for 1998 and is also required to submit one for 2002, the generator **must** provide all information requested in both Tables 1 and 2.

- If a generator was not required to submit an SPR for 1998, but is required to report for 2002, the generator **must** fill out only form items for 2002 and not for 1998. This generator is not required to complete the Accomplishments Portion (Section 24) of Table 2.

- If a generator was required to report only for 1998 and not for 2002, the generator is **not** required to prepare and submit the SPR. Regardless, OPPTD requests that active generators complete and submit parts of Table 1 and Table 2 for 1998, as appropriate.



Helpful hints called "SPR Tips" have been added to Chapters 5 and 6 of this Guidance Manual to help generators complete their SPRs accurately. The SPR Tips link information in the completed Plan and Performance Report to specific SPR requirements.

Note that the SPR Form 1262 is also to be used to report for extremely hazardous waste. If you have identified extremely hazardous waste in your 1998 or 2002 source reduction documents, please complete a separate copy of Form 1262 for your extremely hazardous waste streams and make notation with the waste description in Section 21 of Table 2.

Also note that the SPR is not confidential, and OPPTD will make all SPRs available to the public upon request. If a trade secret issue is involved, follow the procedure discussed in Chapter 8 of this Guidance Manual.

Contact OPPTD if you need to obtain additional copies of the Summary Progress Report publication No. 003. The publication includes both Tables 1 and 2 of Form 1262, and also includes supporting text. This SPR subsection is also included inside the 2002 Hazardous Waste Source Reduction Compliance Checklist. The printed publications can be mailed to you by OPPTD. The publications are also available for you to print from the DTSC web site <http/www.dtsc.ca.gov/pollution prevention>. If you have questions regarding the SPR or SB14 in general, please contact the Source Reduction Unit at (916) 322-3670.

7.2 Send Completed SPRs to OPPTD

On or before September 1, 2003 submittal deadline, please mail your completed Summary Progress Report Form 1262 for the 2002 reporting year to:

Office of Pollution Prevention and Technology Development
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California, 95812-0806
Attention: Summary Progress Report/Source Reduction Unit

The SPR may be e-mailed to DTSC at spr@dtsc.ca.gov. Also, an electronic version of the SPR may be available by Spring 2003. Please contact DTSC for the status of this electronic SPR.

After September 1, 2003, DTSC will undertake a compliance review of all SPR forms received by that deadline date. DTSC will process and compile collected information into a database. The database will help OPPTD analyze statewide hazardous waste reduction trends. The database may be used to prepare fact sheets, industry specific assessment reports, and reports documenting the progress of California's generators towards reducing hazardous waste. DTSC will also use the collected information to estimate statewide hazardous waste source reduction progress. This information may also be used to report to the Legislature on statewide source reduction success.

SUMMARY PROGRESS REPORT

TABLE 1: GENERAL INFORMATION Date _____

A hazardous waste generator subject to SB 14, is required to complete and submit Tables 1 and 2 to the Department of Toxic Substances Control by September 1, 2003. The generator is to submit only one Table 1. The generator may need to submit more than one Table 2, one for each reportable waste stream as stated thereon.

See Summary Progress Report publication or SB 14 Guidance Manual Chapter 7, for assistance.

(1) NAME OF GENERATOR, FACILITY, or BUSINESS		
(2) EPA ID NO.	(3) SIC CODE (provide SIC or NAICS)	(4) NAICS CODE
(5) STREET ADDRESS	(6) CITY	(7) COUNTY
(8) MAILING ADDRESS	(9) CITY	(10) ZIP CODE
(11) CONTACT NAME		(12) CONTACT PHONE
(13) TYPE OF BUSINESS, OPERATION, or ACTIVITY		

(14) SB 14 reportable total quantities of Hazardous Waste Generated at Site, for 1998 and 2002 Reporting Years.

Reportable Total Quantities include all hazardous wastes subject to SB 14.

Do not include nonroutinely generated, exempted, or secondary wastes. Exempted and nonroutinely generated wastes are listed in Section 67100.2(c), Title 22, California Code of Regulations. Secondary waste is hazardous waste generated as a result of onsite treatment of HAZARDOUS waste.

Obtain information requested below from your 1998 and 2002 Plans or Compliance Checklists.	1998	2002
(15) SB 14 hazardous waste processed onsite in a wastewater pretreatment unit for discharge to POTW or NPDES permit (Category A*) Total:	lbs	lbs
(16) All other SB 14 hazardous waste (Category B*) Total:	lbs	lbs
(17) All extremely hazardous waste Total:	lbs	lbs

* Category A was previously referred to as aqueous waste. Category B was previously referred to as nonaqueous waste.

(18) COMMENTS regarding hazardous waste source reduction and recycling activities (add page if needed).

TABLE 2: SPECIFIC WASTE STREAM INFORMATION

DATE _____

Complete and submit a separate Table 2 for each major hazardous waste stream.

Complete and submit a separate Table 2 for each minor hazardous waste stream for which a source reduction measure was selected.

IDENTIFICATION

(19) NAME OF GENERATOR, FACILITY, or BUSINESS	(20) EPA ID NO.
(21) HAZARDOUS WASTE STREAM DESCRIPTION	(22) CALIFORNIA WASTE CODE CWC _____

(23) THIS HAZARDOUS WASTE IS (please check one):

____ Processed onsite in a wastewater pretreatment unit for discharge to POTW or NPDES permit (Category A)

____ Other SB 14 hazardous waste (Category B)

____ Extremely hazardous waste

ACCOMPLISHMENTS

Your 1998 SB 14 Plan, Performance Report, or Compliance Checklist, has this information.

(24) Provide the following information for this waste stream:

How much waste was generated in the 1998 Reporting Year? _____ pounds

Describe the source reduction measure(s) implemented since 1998 (add page if needed): _____

_____

Estimate when this source reduction measure was implemented: _____ Month _____ year

For this measure, what source reduction quantity was projected in the 1998 Plan: _____ pounds per year

Estimate the quantity of waste reduced annually by this measure since implementation: _____ pounds per year

(See Summary Progress Report publication or SB 14 Guidance Manual Chapter 6, to help estimate hazardous waste reduced.)

PROJECTIONS

Your 2002 SB 14 Plan or Compliance Checklist has this information.

(25) Provide the following information for this waste stream:

How much waste was generated in the 2002 Reporting Year? _____ pounds

Describe the source reduction measure selected to be implemented By 2006: (Add page if needed.) _____

_____

Estimate when this source reduction measure will be implemented: _____ month _____ year

What is the annual projected source reduction quantity identified in the 2002 Plan? _____ pounds per year

Chapter 8 Public Access and Trade Secrets

8.1 Availability of Source Reduction Documents

With the exception of the SPR, Plans and Reports are not sent to DTSC upon completion. However, a generator must keep a copy of the Plan, Report, and SPR at the generator's site and, upon request, present the documents to any authorized representative of DTSC or the local authorize agency conducting an inspection. The generator is subject to a fine of $1,000 per day for failure to provide any source reduction documents upon request.

A copy of the Plan, Report, and SPR must be available locally for public review. The source reduction documents can be kept at the generator's site, a public library, or the office of a local governmental agency willing to act as a repository for the documents.

8.2 Protecting Trade Secrets

A generator may claim any information submitted to DTSC under SB 14 as confidential. When DTSC requests a generator to submit a source reduction document containing confidential information, the generator must make a claim of confidentiality by placing the words "confidential business information" on each page containing the confidential information. If the generator does not make a claim of confidentiality, DTSC can make the information available to the public without notifying the generator.

When DTSC requests a generator to submit a source reduction document containing confidential information, the generator must submit two versions of the document. One version must contain the confidential information. The generator must remove the confidential information from the second version and clearly indicate which pages have been removed. The generator is responsible for removing trade secrets from the documents before fulfilling the public's request to view the documents.

Appendix A SB 14 Law

Excerpts from the Health & Safety Code, Div. 20, Chapter 6.5, Article 11.9

25244.12. This article shall be known and may be cited as the Hazardous Waste Source Reduction and Management Review Act of 1989.

25244.13. The Legislature finds and declares as follows:

(a) Existing law requires the department and the State Water Resources Control Board to promote the reduction of generated hazardous waste. This policy, in combination with hazardous waste land disposal bans, requires the rapid development of new programs and incentives for achieving the goal of optimal minimization of the generation of hazardous wastes. Substantial improvements and additions to the state's hazardous waste reduction program are required to be made if these goals are to be achieved.

(b) Hazardous waste source reduction provides substantial benefits to the state's economy by maximizing use of materials, avoiding generation of waste materials, improving business efficiency, enhancing revenues of companies that provide products and services in the state, increasing the economic competitiveness of businesses located in the state, and protecting the state's precious and valuable natural resources.

(c) It is the intent of the Legislature to expand the state's hazardous waste source reduction-activities beyond those directly associated with source reduction evaluation reviews and plans. The expanded program, which is intended to accelerate reduction in hazardous waste generation, shall include programs to promote implementation of source reduction measures using education, outreach, and other effective voluntary techniques demonstrated in California or other states.

(d) It is the intent of the Legislature for the department to maximize the use of its available resources in implementing the expanded source reduction program through cooperation with other entities, including, but not limited to, CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs. To the extent feasible, the department shall utilize cooperative programs with entities that routinely contact small business to expand its support of small business source reduction activities.

(e) It is the goal of this article to do all of the following:

(1) Reduce the generation of hazardous waste.

(2) Reduce the release into the environment of chemical contaminants which have adverse and serious health or environmental effects.

(3) Document hazardous waste management information and make that information available to state and local government.

(f) It is the intent of this article to promote the reduction of hazardous waste at its source, and wherever source reduction is not feasible or practicable, to encourage recycling. Where it is not feasible to reduce or recycle hazardous waste, the waste should be treated in an environmentally safe manner to minimize the present and future threat to health and the environment.

(g) It is the intent of the Legislature not to preclude the regulation of environmentally harmful releases to all media, including air, land, surface water, and groundwater, and to encourage and promote the reduction of these releases to air, land, surface water, and groundwater

(h) It is the intent of the Legislature to encourage all state departments and agencies, especially the State Water Resources Control Board, the California regional water quality control boards, the State Air Resources Board, the air pollution control districts, and the air quality management districts, to promote the reduction of environmentally harmful releases to all media.

25244.14. For purposes of this article, the following definitions apply:

(a) "Advisory committee" means the California Source Reduction Advisory Committee established pursuant to Section 25244.15.1.

(b) "Appropriate local agency" means a county, city, or regional association that has adopted a hazardous waste management plan pursuant to Article 3.5 (commencing with Section 25135).

(c) "Hazardous waste management approaches" means approaches, methods, and techniques of managing the generation and handling of hazardous waste, including source reduction, recycling, and the treatment of hazardous waste.

(d) "Hazardous waste management performance report" or "report" means the report required by subdivision (b) of Section 25244.20 to document and evaluate the results of hazardous waste management practices.

(e)(1) "Source reduction" means one of the following:

(A) Any action that causes a net reduction in the generation of hazardous waste.

(B) Any action taken before the hazardous waste is generated that results in a lessening of the properties which cause it to be classified as a hazardous waste.

(2) "Source reduction" includes, but is not limited to, all of the following:

(A) "Input change," which means a change in raw materials or feedstocks used in a production process or operation so as to reduce, avoid, or eliminate the generation of hazardous waste.

(B) "Operational improvement," which means improved site management so as to reduce, avoid, or eliminate the generation of hazardous waste.

(C) "Production process change," which means a change in a process, method, or technique which is used to produce a product or a desired result, including the return of materials or their components, for reuse within the existing processes or operations, so as to reduce, avoid, or eliminate the generation of hazardous waste.

(D) "Product reformulation," which means changes in design, composition, or specifications of end products, including product substitution, so as to reduce, avoid, or eliminate the generation of hazardous waste.

(3) "Source reduction" does not include any of the following:

(A) Actions taken after a hazardous waste is generated.

(B) Actions that merely concentrate the constituents of a hazardous waste to reduce its volume or that dilute the hazardous waste to reduce its hazardous characteristics.

(C) Actions that merely shift hazardous wastes from one environmental medium to another environmental medium.

(D) Treatment.

(f) "Source reduction evaluation review and plan" or "review and plan" means a review conducted by the generator of the processes, operations, and procedures in use at a generator's site, in accordance with the format established by the department pursuant to subdivision (a) of Section 25244.16, and that does both of the following:

(1) Determines any alternatives to, or modifications of, the generator's processes, operations, and procedures that may be implemented to reduce the amount of hazardous waste generated.

(2) Includes a plan to document and implement source reduction measures for the hazardous wastes specified in paragraph (1) that are technically feasible and economically practicable for the generator, including a reasonable implementation schedule.

(g) "SIC Code" has the same meaning as defined in Section 25501.

(h) "Hazardous waste," "person," "recycle," and "treatment" have the same meaning as defined in Article 2 (commencing with Section 25110).

25244.15.

(a) The department shall establish a program for hazardous waste source reduction pursuant to this article.

(b) The department shall coordinate the activities of all state agencies with responsibilities and duties relating to hazardous waste and shall promote coordinated efforts to encourage the reduction of hazardous waste. Coordination between the program and other relevant state agencies and programs shall, to the fullest extent possible, include joint planning processes and joint research and studies.

(c) The department shall adopt regulations to carry out this article.

(d) (1) Except as provided in paragraph (3), this article applies only to generators who, by site, routinely generate, through ongoing processes and operations, more than 12,000 kilograms of hazardous waste in a calendar year, or more than 12 kilograms of extremely hazardous waste in a calendar year.

(2) The department shall adopt regulations to establish procedures for exempting generators from the requirements of this article where the department determines that no source reduction opportunities exist for the generator.

(3) Notwithstanding paragraph (1), this article does not apply to any generator whose hazardous waste generating activity consists solely of receiving offsite hazardous wastes and generating residuals from the processing of those hazardous wastes.

25244.15.1.

(a) The California Source Reduction Advisory Committeeis hereby created and consists of the following members:

(1) The Executive Director of the State Air Resources Board, as an ex officio member.

(2) The Executive Director of the State Water Resources Control Board, as an ex officio member.

(3) The Director of Toxic Substances Control, as an ex officio member.

(4) The Executive Director of the Integrated Waste Management Board, as an ex officio member.

(5) The Chairperson of the California Environmental Policy Council established pursuant to Section 71017 of the Public Resources Code, as an ex officio member.

(6) Ten public members with experience in source reduction as appointed by the department. These public members shall include all of the following:

(A) Two representatives of local governments from different regions of the state.

(B) One representative of a publicly owned treatment works.

(C) Two representatives of industry.

(D) One representative of small business.

(E) One representative of organized labor.

(F) Two representatives of statewide environmental advocacy organizations.

(G) One representative of a statewide public health advocacy organization.

(7) The department may appoint up to two additional public members with experience in source reduction and detailed knowledge of one of the priority categories of generators selected in accordance with Section 25244.17.1.

(b) The advisory committee shall select one member to serve as chairperson.

(c) The members of the advisory committee shall serve without compensation, but each member, other than officials of the state, shall be reimbursed for all reasonable expenses incurred in the performance of his or her duties, as authorized by the department.

(d) The advisory committee shall meet at least semiannually to provide a public forum for discussion and deliberation on matters pertaining to the implementation of this chapter.

(e) The advisory committee's responsibilities shall include, but not be limited to, the following:

(1) Reviewing and providing consultation and guidance in the preparation of the work plan required by Section 25244.22.

(2) Evaluating the performance and progress of the department's source reduction program.

(3) Making recommendations to the department concerning program activities and funding priorities, and legislative changes, if needed.

(f) The advisory committee established by this section shall be in existence until April 15, 2002, by which date the department shall, in consultation with the advisory committee, evaluate the role and activities of the advisory committee and determine if the committee is beneficial to the implementation of this article. On and after April 15, 2002, the advisory committee shall continue to exist and operate to the extent that the department, in consultation with the advisory committee, determines the advisory committee continues to be beneficial to the operation of the department's source reduction programs.

25244.16. The department shall do both of the following:

(a) Adopt a format to be used by generators for completing the review and plan required by Section 25244.19, and the report required by Section 25244.20. The format shall include at least all of the factors the generator is required to include in the review and plan and the report. The department may include any other factor determined by the department to be necessary to carry out this article. The adoption of a format pursuant to this subdivision is not subject to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

(b) Establish a data and information system to be used by the department for developing the categories of generators specified in Section 25244.18, and for processing and evaluating the source reduction and other hazardous waste management information submitted by generators pursuant to Section 25244.18. In establishing the data and information system, the department shall do all of the following:

(1) Establish methods and procedures for appropriately processing or managing hazardous waste source reduction and management information.

(2) Use the data management expertise, resources, and forms of already established environmental protection programs, to the extent practicable.

(3) Establish computerized data retrieval and data processing systems, including safeguards to protect trade secrets designated pursuant to Section 25244.23.

(4) Identify additional data and information needs of the program.

25244.17. The department shall establish a technical and research assistance program to assist generators in identifying and applying methods of source reduction and other hazardous waste management approaches. The program shall emphasize assistance to smaller businesses that have inadequate technical and financial resources for obtaining information, assessing source reduction methods, and developing and applying source reduction techniques. The program shall include at least all of the following elements, which shall be carried out by the department:

(a) The department shall encourage programs by private or public consultants, including onsite consultation at sites or locations where hazardous waste is generated, to aid those generators requiring assistance in developing and implementing the review and plan, the plan summary, the report, and the report summary required by this article.

(b) The department shall conduct review and plan assistance programs, seminars, workshops, training programs, and other similar activities to assist generators to evaluate source reduction alternatives and to identify opportunities for source reduction.

(c) The department shall establish a program to assemble, catalogue, and disseminate information about hazardous waste source reduction methods, available consultant services, and regulatory requirements.

(d) The department shall identify the range of generic and specific technical solutions that can be applied by particular types of hazardous waste generators to reduce hazardous waste generation.

25244.17.1. The department shall establish a technical assistance and outreach program to promote implementation of model source reduction measures in priority industry categories.

(a) Every two years, in the work plan required by Section 25244.22, the department shall, in consultation with the advisory committee, select at least two priority categories of generators by SIC Code. At least one selected category of generators shall be taken from the list of categories previously selected by the department under Section 25244.18. At least one selected category of generators shall be a category that consists primarily of small businesses.

(b) For each selected priority industry category, the department shall implement a cooperative source reduction technical assistance and outreach program to include the following elements:

(1) The department shall use available resources, including reports prepared pursuant to paragraph (4) of subdivision (a) of Section 25244.18 and information on source reduction methods from federal, state, and local governments and industry associations and industry members, to identify a set of model source reduction measures for each industry category.

(2) The department shall determine, with the assistance of the advisory committee, the most effective technical assistance and outreach methods to promote implementation of the model source reduction measures identified in paragraph (1).

(3) The department shall develop a plan and schedule to implement the technical assistance and outreach measures before the next biennial work plan. The measures may include, but are not limited to, all of the following:

(A) Holding, presenting at, or cosponsoring workshops, conferences, technology fairs, and other promotional events.

(B) Developing and distributing educational materials, such as short descriptions of successful source reduction projects.

(C) Developing checklists, training manuals, technical resource manuals and using those resources to train CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs.

(D) Preparing and distributing resource lists, such as lists of vendors, consultants, or providers of financial assistance for source reduction projects.

(E) Serving as an information clearinghouse to support telephone and onsite consultations with businesses and local governments.

(4) For industry categories that include primarily large or technically complex businesses, the source reduction technical assistance and outreach program shall emphasize activities that involve direct communication between department staff and industry members. For these industry categories, the department shall communicate with representatives of 80 percent of the state's companies in the category. For categories that consist primarily of small businesses, the cooperative source reduction program shall emphasize providing industry-specific training and resources to CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs for use in their inspections and other direct communications with businesses.

(c) While conducting activities under this section, the department shall coordinate its activities with appropriate industry and professional associations.

(d) The department shall coordinate activities under this section with grants made under Sections 25244.5 and 25244.11.5.

25244.17.2. The department shall expand the department's source reduction program to provide source reduction training and resources to CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs so that they can provide technical assistance to generators in identifying and applying methods of source reduction.

(a) The program expanded pursuant to this section shall emphasize activities necessary to implement Sections 25244.17 and 25244.17.1.

(b) The department shall determine, in consultation with the advisory committee, the most effective methods to promote implementation of source reduction education programs by CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs. Program elements may include, but are not limited to, all of the following:

(1) Sponsoring workshops, conferences, technology fairs, and other training events.

(2) Sponsoring regional training groups, such as the regional hazardous waste reduction committees.

(3) Developing and distributing educational materials, such as short descriptions of successful source reduction projects and materials explaining how source reduction has been used by businesses to achieve compliance with environmental laws enforced by local governments.

(4) Developing site review checklists, training manuals, and technical resource manuals and using those resources to train CUPAs, small business development corporations, business environmental assistance centers, and other regional and local government environmental programs.

(5) Preparing and distributing resource lists such as lists of vendors, consultants, or providers of financial assistance for source reduction projects.

(6) Serving as an information clearinghouse to support telephone and onsite consultants with local governments.

(c) The department shall coordinate activities under this section with grants made under Section 25244.11.5.

(d) Each fiscal year, the department shall provide training and information resources to at least 90 percent of CUPAs.

25244.18.

(a) On or before September 15, 1991, and every two years thereafter, the department shall select at least two categories of generators by SIC Code with potential for source reduction, and, for each category, shall do all of the following:

(1) Request that selected generators in the category provide the department, on a timely basis, with a copy of the generator's completed review and plan and with a copy of the generator's completed report.

(2) Examine the review and plan and the report of selected generators in the category.

(3) Ensure that the selected generators in that category comply with Sections 25244.19 and 25244.20.

(4) Identify successful source reduction and other hazardous waste management approaches employed by generators in the category and disseminate information concerning those approaches to generators within the category.

(b) In carrying out subdivision (a), the department shall not disseminate information determined to be a trade secret pursuant to Section 25244.23.

(c) The department or the unified program agency may request from any generator, and the generator shall provide within 30 days from the date of the request, a copy of the generator's review and plan or report. The department or the unified program agency may evaluate any of those documents submitted to the department or the unified program agency to determine whether it satisfies the requirements of this article.

(d)(1) If the department or the unified program agency determines that a generator has not completed the review and plan in the manner required by Section 25244.19, or the report in the manner required by Section 25244.20, the department or the unified program agency shall provide the generator with a notice of noncompliance, specifying the deficiencies in the review and plan or report identified by the department. If the department or the unified program agency finds that the review and plan does not comply with Section 25244.19, the department or the unified program agency shall consider the review and plan to be incomplete. A generator shall file a revised review and plan or report correcting the deficiencies identified by the department or the unified program agency within 60 days from the date of the receipt of the notice. The department or the unified program agency may grant, in response to a written request from the generator, an extension of the 60-day deadline, for cause, except that the department or the unified program agency shall not grant that extension for more than an additional 60 days.

(2) If a generator fails to submit a revised review and plan or report complying with the requirements of this article within the required period, or if the department or unified program agencydetermines that a generator has failed to implement the measures included in the generator's review and plan for reducing the generator's hazardous waste, in accordance with Section 25244.19, the department or the unified program agency may impose civil penalties pursuant to Section 25187, in an amount not to exceed one thousand dollars ($1,000) for each day the violation of this article continues, notwithstanding Section 25189.2, seek an order directing compliance pursuant to Section 25181, or enter into a consent agreement or a compliance schedule with the generator.

(e) If a generator fails to implement a measure specified in the review and plan pursuant to paragraph (5) of subdivision (b) of Section 25244.19, the generator shall not be deemed to be in violation of Section 25244.19 for not implementing the selected measure if the generator does both of the following:

(1) The generator finds that, upon further analysis or as a result of unexpected consequences, the selected measure is not technically feasible or economically practicable, or if the selected approach has resulted in any of the following:

(A) An increase in the generation of hazardous waste.

(B) An increase in the release of hazardous chemical contaminants to other media.

(C) Adverse impacts on product quality.

(D) A significant increase in the risk of an adverse impact to human health or the environment.

(2) The generator revises the review and plan to comply with the requirements of Section 25244.19.

(f) When taking enforcement action pursuant to this article, the department or the unified program agency shall not judge the appropriateness of any decisions or proposed measures contained in a review and plan or report, but shall only determine whether the review and plan or report is complete, prepared, and implemented in accordance with this article.

(g) In addition to the unified program agency, an appropriate local agency that has jurisdiction over a generator's site may request from the generator, and the generator shall provide within 30 days from the date of that request, a copy of the generator's current review and plan and report.

25244.19.

(a) On or before September 1, 1991, and every four years thereafter, each generator shall conduct a source reduction evaluation review and plan pursuant to subdivision (b).

(b) Except as provided in subdivision (c), the source reduction evaluation review and plan required by subdivision (a) shall be conducted and completed for each site pursuant to the format adopted pursuant to subdivision (a) of Section 25244.16 and shall include, at a minimum, all of the following:

(1) The name and location of the site.

(2) The SIC Code of the site.

(3) Identification of all routinely generated hazardous waste streams that annually weigh 600 kilograms or more and that result from ongoing processes or operations and exceed 5 percent of the total yearly weight of hazardous waste generated at the site, or, for extremely hazardous waste, that annually weigh 0.6 kilograms or more and exceed 5 percent of the total yearly weight of extremely hazardous waste generated at the site. For purposes of this paragraph, a hazardous waste stream identified pursuant to this paragraph shall also meet one of the following criteria:

(A) It is a hazardous waste stream processed in a wastewater treatment unit that discharges to a publicly owned treatment works or under a national pollutant discharge elimination system (NPDES) permit, as specified in the Federal Water Pollution Control Act, as amended (33 U.S.C. Sec. 1251 and following).

(B) It is a hazardous waste stream that is not processed in a wastewater treatment unit and its weight exceeds 5 percent of the weight of the total yearly volume at the site, less the weight of any hazardous waste stream identified in subparagraph (A).

(4) For each hazardous waste stream identified in paragraph (3), the review and plan shall include all of the following information:

(A) An estimate of the quantity of hazardous waste generated.

(B) An evaluation of source reduction approaches available to the generator that are potentially viable. The evaluation shall consider at least all of the following source reduction approaches:

(i) Input change.

(ii) Operational improvement.

(iii) Production process change.

(iv) Product reformulation.

(5) A specification of, and a rationale for, the technically feasible and economically practicable source reduction measures that will be taken by the generator with respect to each hazardous waste stream identified in paragraph (3). The review and plan shall fully document any statement explaining the generator's rationale for rejecting any available source reduction approach identified in paragraph (4) .

(6) An evaluation, and, to the extent practicable, a quantification, of the effects of the chosen source reduction method on emissions and discharges to air, water, or land.

(7) A timetable for making reasonable and measurable progress towards implementation of the selected source reduction measures specified in paragraph (5).

(8) Certification pursuant to subdivision (d).

(9) Any generator subject to this article shall include in its source reduction evaluation review and plan four-year numerical goals for reducing the generation of hazardous waste streams through the approaches provided for in subparagraph (B) of paragraph (4), based upon its best estimate of what is achievable in that four-year period.

(10) A summary progress report that briefly summarizes and, to the extent practicable, quantifies, in a manner that is understandable to the general public, the results of implementing the source reduction methods identified in the generator's review and plan for each waste

stream addressed by the previous plan over the previous four years. The report shall also include an estimate of the amount of reduction that the generator anticipates will be achieved by the implementation of source reduction methods during the period between the preparation of the review and plan and the preparation of the generator's next review and plan. Notwithstanding any other provision of this section, the summary progress report required to be prepared pursuant to this paragraph shall be submitted to the department on or before September 1, 1999, and every four years thereafter.

(c) If a generator owns or operates multiple sites with similar processes, operations, and waste streams, the generator may prepare a single multisite review and plan addressing all of these sites.

(d) Every review and plan conducted pursuant to this section shall be submitted by the generator for review and certification by an engineer who is registered as a professional engineer pursuant to Section 6762 of the Business and Professions Code and who has demonstrated expertise in hazardous waste management, by an individual who is responsible for the processes and operations of the site, or by an environmental assessor who is registered pursuant to Section 25570.3 and who has demonstrated expertise in hazardous waste management. The engineer, individual, or environmental assessor shall certify the review and plan only if the review and plan meet all of the following requirements:

(1) The review and plan addresses each hazardous waste stream identified pursuant to paragraph (3) of subdivision (b).

(2) The review and plan addresses the source reduction approaches specified in subparagraph (B) of paragraph (4) of subdivision (b).

(3) The review and plan clearly sets forth the measures to be taken with respect to each hazardous waste stream for which source reduction has been found to be technically feasible and economically practicable, with timetables for making reasonable and measurable progress, and properly documents the rationale for rejecting available source reduction measures.

(4) The review and plan does not merely shift hazardous waste from one environmental medium to another environmental medium by increasing emissions or discharges to air, water, or land.

(e) At the time a review and plan is submitted to the department or the unified program agency, the generator shall certify that the generator has implemented, is implementing, or will be implementing, the source reduction measures identified in the review and plan in accordance with **t**he implementation schedule contained in the review and plan. A generator may determine not to implement a measure selected in paragraph (5) of subdivision (b) only if the generator determines, upon conducting further analysis or due to unexpected circumstances, that the selected measure is not technically feasible or economically practicable, or if attempts to implement that measure reveal that the measure would result in, or has resulted in, any of the following:

(1) An increase in the generation of hazardous waste.

(2) An increase in the release of hazardous chemicals to other environmental media.

(3) Adverse impacts on product quality.

(4) A significant increase in the risk of an adverse impact to human health or the environment.

(f) If the generator elects not to implement the review and plan, including, but not limited to, a selected measure pursuant to subdivision (e), the generator shall amend its review and plan to reflect that election and include in the review and plan proper documentation identifying the rationale for that election.

25244.20.

(a) On or before September 1, 1991, and every four years thereafter, each generator shall prepare a hazardous waste management performance report documenting hazardous waste management approaches implemented by the generator.

(b) Except as provided in subdivision (d), the hazardous waste management performance report required by subdivision (a) shall be prepared for each site in accordance with the format adopted pursuant to subdivision (a) of Section 25244.16 and shall include all of the following:

(1) The name and location of the site.

(2) The SIC Code for the site.

(3) All of the following information for each waste stream identified pursuant to paragraph (3) of subdivision (b) of Section 25244.19:

(A) An estimate of the quantity of hazardous waste generated and the quantity of hazardous waste managed, both onsite and offsite, during the current reporting year and the baseline year, as specified in subdivision (c).

(B) An abstract for each source reduction, recycling, or treatment technology implemented from the baseline year through the current reporting year, if the reporting year is different from the baseline year.

(C) A description of factors during the current reporting year that have affected hazardous waste generation and onsite and offsite hazardous waste management since the baseline year, including, but not limited to, any of the following:

(i) Changes in business activity.

(ii) Changes in waste classification.

(iii) Natural phenomena.

(iv) Other factors that have affected either the quantity of hazardous waste generated or onsite and offsite hazardous waste management requirements.

(4) The certification of the report pursuant to subdivision (e).

(c) For purposes of subdivision (b), the following definitions apply:

(1) The current reporting year is the calendar year immediately preceding the year in which the report is to be prepared.

(2) The baseline year is either of the following, whichever is applicable:

(A) For the initial report, the baseline year is the calendar year selected by the generator for which substantial hazardous waste generation, or onsite or offsite management, data is available prior to 1991.

(B) For all subsequent reports, the baseline year is the current reporting year of the immediately preceding report.

(d) If a generator owns or operates multiple sites with similar processes, operations, and waste streams, the generator may prepare a single multisite report addressing all of these sites.

(e) Every report completed pursuant to this section shall be submitted by the generator for review and certification by an engineer who is registered as a professional engineer pursuant to Section 6762 of the Business and Professions Code and who has demonstrated expertise in hazardous waste management, by an individual who is responsible for the processes and operations of the site, or by an environmental assessor who is registered pursuant to Section 25570.3 and who has demonstrated expertise in hazardous waste management. The engineer, individual, or environmental assessor shall certify the report only if the report identifies factors that affect the generation and onsite and offsite management of hazardous wastes and summarizes the effect of those factors on the generation and onsite and offsite management of hazardous wastes.

25244.21.

(a) Every generator shall retain the original of the current review and plan and report, shall maintain a copy of the current review and plan and report at each site, or, for a multisite review and plan or report, at a central location, and upon request, shall make it available to any authorized representative of the department or the unified program agency conducting an inspection pursuant to Section 25185. If a generator fails, within five days, to make available to the inspector the review and plan or report, the department, the unified program agency, or any authorized representative of the department, or of the unified program agency, conducting an inspection pursuant to Section 25185, shall, if appropriate, impose a civil penalty pursuant to Section 25187, in an amount not to exceed one thousand dollars ($1,000) for each day the violation of this article continues, notwithstanding Section 25189.2.

(b) If a generator fails to respond to a request for a copy of its review and plan or report made by the department or a unified program agency pursuant to subdivision (c) of Section 25244.18, or by a local agency pursuant to subdivision (g) of Section 25244.18, within 30 days from the date of the request, the department or unified program agency shall, if appropriate, assess a civil penalty pursuant to Section 25187, in an amount not to exceed one thousand dollars ($1,000) for each day the violation of this article continues, notwithstanding Section 25189.2.

(c) (1) Any person may request the department to certify that a generator is in compliance with this article by having the department certify that the generator has properly completed the review and plan and report required pursuant to Sections 25244.19 and 25244.20. The department shall respond within 60 days to a request for certification. Upon receiving a request for certification, the department shall request from the generator, who is the subject of the request, a copy of the generator's review and plan and report, pursuant to subdivision (c) of Section 25244.19, if the department does not have these documents. The department shall forward a copy of the review and plan and report to the person requesting certification, within 10 days from the date that the department receives the request for certification or receives the review and plan and report, whichever is later. The department shall protect trade secrets in accordance with Section 25244.23 in a review and plan or report, requested to be released pursuant to this subdivision.

(2) This subdivision does not prohibit any person from directly requesting from a generator a copy of the review and plan or report. Solely for the purposes of responding to a request pursuant to this subdivision, the department shall deem the review and plan or report to be a public record subject to Section 25152.5, and shall act in compliance with that section.

25244.22. Commencing May 1, 2000, and on or before January 15 of every other year thereafter, the department shall prepare, and make available for public review within five days thereafter, a draft work plan for the department's operations and activities in carrying out this article. The department shall prepare the work plan in consultation with the advisory committee and with other interested parties, including local government, industry, labor, health, and environmental organizations. After holding a public meeting of the advisory committee to discuss the draft work plan, the department shall finalize the work plan on or before June 15, 2000, and on or before April 1 of every other year thereafter. The department may include this work plan within the report required pursuant to Section 25171. This work plan shall include, but not be limited to, all of the following information:

(a) A summary analysis of readily available data on the state's hazardous waste generation and management patterns. The analysis shall include information from various data sources including hazardous waste manifests, biennial generator reports, and United States Environmental Protection Agency Toxics Release Inventory reports. The department shall estimate the quantities of hazardous waste generated in the state, by hazardous waste stream, the amounts of hazardous waste generated in the state by industry SIC Code, and the amounts of hazardous waste state generators sent offsite for management, by management method.

(b) An evaluation of hazardous waste source reduction progress in this state, using the data summary analysis prepared pursuant to subdivision (a).

(c) Recommendations for legislation.

(d) Identification of any state, federal, or private economic and financial incentives that can best accelerate and maximize the research and development of source reduction and other hazardous waste management technologies and approaches.

(e) The status, funding, and results of all research projects.

(f) A detailed summary of the extent to which the statewide goal of 5 percent per year reduction of the generation of hazardous wastes, pursuant to subdivision (e) of Section 25244.15, has been attained, and a detailed summary of the extent to which different categories of facilities have attained the numerical goals established pursuant to paragraph (9) of subdivision (b) of Section 25244.19. This summary, which shall use the data summary analysis prepared pursuant to subdivision (a), shall include an evaluation by the department of the reasons why these goals have or have not been attained, including an evaluation of the impact of economic growth or decline and changes in production patterns, and a list of appropriate recommendations designed to ensure attainment of these goals.

(g) An outline of the department's operations and activities under this article proposed for the next two-year period. The department shall use the data summary analysis prepared pursuant to subdivision (a) to select hazardous waste stream and industries for source reduction efforts. When identifying activities for inclusion in the work plan, the department shall also consider potential benefits to human health and the environment, available resources, feasibility of applying source reduction techniques to reduce selected hazardous waste streams and to reduce hazardous wastes generated by selected industries, and availability of related resources from other entities, such as other states, the federal government, local governments, and other organizations.

25244.23.

(a) (1) The department shall adopt regulations to ensure that trade secrets designated by a generator in all or a portion of the review and plan or the report required by this article are utilized by the director, the department, the unified program agency, or the appropriate local agency only in connection with the responsibilities of the department pursuant to this article, and that those trade secrets are not otherwise disseminated by the director, the department, the unified program agency, or any authorized representative of the department, or the appropriate local agency, without the consent of the generator.

(2) Any information subject to this section shall be made available to governmental agencies for use in making studies and for use in judicial review or enforcement proceedings involving the person furnishing the information.

(3) As provided by Section 25159.5, the regulations adopted pursuant to this subdivision shall conform with the corresponding trade secret regulations adopted by the Environmental Protection Agency pursuant to the federal act, except that the regulations adopted by the department may be more stringent or more extensive than the federal trade secret regulations.

(4) "Trade secrets," as used in this section, may include, but are not limited to, any formula, plan, pattern, process, tool, mechanism, compound, procedure, production data, or compilation of information that is not patented, that is known only to certain individuals within a commercial concern who are using it to fabricate, produce, or compound an article of trade or a service having commercial value, and that gives its user an opportunity to obtain a business advantage over competitors who do not know or use it.

(b) The department, the unified program agency, and the appropriate local agency shall protect from disclosure any trade secret designated by the generator pursuant to this section. The department shall make available information concerning source reduction approaches that have proved successful, and that do not constitute a trade secret, when carrying out subdivision (c) of Section 25244.17 and to subdivision (a) of Section 25244.18.

(c) This section does not permit a generator to refuse to disclose the information required pursuant to this article to the department, the unified program agency, or the appropriate local agency, an officer or employee of the department, the unified program agency, or the appropriate local agency, in connection with the official duties of that officer or employee under this article.

(d) Any officer or employee of the department, the unified program agency, or the appropriate local agency, or any other person, who, because of his or her employment or official position, has possession of, or has access to, confidential information, and who, knowing that disclosure of the information to the general public is prohibited by this section, knowingly and willfully discloses the information in any manner to any person not entitled to receive it, is guilty of a misdemeanor and, upon conviction thereof, shall be punished by imprisonment in the county jail not exceeding six months, by a fine not exceeding one thousand dollars ($1,000), or by both the fine and imprisonment.

25244.24.

(a) For purposes of this section the following definitions shall apply:

(1) "Program" means the voluntary program to reduce hazardous waste generation established by this section.

(2) "Release" means a release of a chemical into the environment in any manner and by any means. "Release" includes, but is not limited to, any release authorized or permitted pursuant to a statute, ordinance, regulation, or rule of any federal, state, local, or regional agency or government or by a permit, license, variance or other authorization from the agency or government.

(b) On or before October 1, 2000, the department shall, in consultation with the advisory committee established pursuant to Section 25244.15.1, conduct an inventory and analysis of low-cost voluntary programs that are, or have been conducted by other states, the federal government, or local government entities to reduce hazardous waste generation and other environmental releases of toxic chemicals, and shall develop recommendations for programs that would be effective and feasible in California, based on the inventory and analysis.

(c) In consultation with the advisory committee, large businesses, and the public, the department shall develop a low-cost voluntary program to further reduce generation of hazardous waste by large businesses in California. The program shall be designed to promote cooperative relationships between California business and the department, while creating a significant environmental benefit from reduced hazardous waste generation. The department shall include the program in the work plan required by Section 25244.22 on or before January 15, 2002.

(d) In designing and implementing the program the department shall take into consideration all of the following:

(1) Estimates of the volumes of potential reductions of hazardous waste generation and other possible program benefits.

(2) The types of facilities expected to participate and their current hazardous waste generation and other releases of toxic chemicals into the environment.

(3) The potential for reductions in hazardous waste generation resulting in an increase in releases of toxic chemicals to a different environmental medium.

(4) The potential public health and environmental benefits of the program.

(5) Methods for publicizing the program and encouraging facilities throughout the state to participate in the program.

(6) Providing appropriate public recognition of facilities that successfully are participating in the program.

(7) Establishing a means for monitoring the progress that each facility participating in the program is making toward implementing the program.

(8) Establishing methods for evaluating the implementation of the inventory, analysis, and program and for reporting on the progress of the program in the work plan required pursuant to Section 25244.22.

(9) Procedures for providing technical support to program participants to assist with the implementation of the program.

(e) Participation in the program shall not create a presumption that the participating facility has determined that any chemical release reduction measure is technically feasible or economically practicable pursuant to any other provision of law.

(f) Actions of the department pursuant to this section are exempt from the requirements of Chapter 3.5 (commencing with Section 11340) of Division 3 of Title 2 of the Government Code.

(g) If, on the basis of the inventory and analysis required by in subdivision (b), the department finds that it is not possible to design and implement, at relatively low cost, a voluntary program to promote cooperative relationships between California business and the department, while creating a significant environmental benefit, and the advisory committee concurs with this finding, the department is not required to implement the program.

Appendix B SB 14 Regulations

The following excerpts are from California Code of Regulations, Title 22, Div. 4.5, Ch. 31.

§67100.1. Definitions.

For the purpose of this article, the following definitions shall apply:

(a) "Appropriate local agency" means a county, city, or regional association which has adopted a hazardous waste management plan pursuant to Article 3.5, Chapter 6.5, Division 20, Health and Safety code (commencing with section 25135).

(b) "Baseline year" is any of the following, whichever is applicable:

(1) For a generator's initial report, the baseline year is the calendar year, selected by the generator, for which substantial hazardous waste generation, or onsite or offsite management data is available, except the generator may select the current reporting year as the baseline year for the initial report.

(2) For all subsequent reports, the baseline year is the reporting year of the immediately preceding report.

(c) "Concentration" means the amount of a given substance in a stated unit of mixture, solution or waste. For purposes of this article it also means the range of components typically found in the waste.

(d) "Hazardous waste management approaches" means methods and techniques of controlling the generation and handling of hazardous waste, including source reduction, recycling, and treatment of hazardous waste.

(e) "Hazardous waste management performance report" or "report" means the report required by section 67100.7(a) of these regulations to document and evaluate the results of hazardous waste management practices.

(f) “Laboratory” means a facility where the “laboratory use of hazardous chemicals” occurs. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis.

(g) “Laboratory scale” means work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. “Laboratory scale” excludes those workplaces whose function is to produce commercial quantities of material.

(h) “Laboratory use of hazardous chemicals” means handling or use of such materials in which all of the following conditions are met:

(1) Chemical manipulations are carried out on a “laboratory scale”;

(2) Multiple chemical procedures or chemicals are used; and

(3) The procedures involved are not part of a production process, nor in any way simulate a production process.

(i) "Motor vehicle fluids" includes all fluids associated with the operation of a vehicle that is self propelled, for example, transmission oil, hydraulic fluid, brake fluid, antifreeze, power steering fluid, and gasoline.

(j) "Numerical Goal" means a single numerical percentage reflecting an estimate of the source reduction the generator could optimally strive to achieve over a four-year period.

(k) "Reporting year" is the calendar year immediately preceding the year in which plans, reports, and compliance checklist are to be prepared.

(l) "Routinely generated" means:

(1) Hazardous and extremely hazardous wastes that result from ongoing processes or operations.

(2) Hazardous wastes generated from regularly scheduled maintenance or production activities performed less frequently than once a year.

(m) "Small business" means "small business" as defined in Government Code, section 11342(e).

(n) "Source reduction" means one of the following:

(1) Any action which causes a net reduction in the generation of hazardous waste.

(2) Any action taken before the hazardous waste is generated that results in lessening of the properties which cause it to be classified as a

hazardous waste.

(o) "Source reduction evaluation review and plan" or "review and plan" or "plan" means a review conducted by the generator of the processes, operations, and procedures in use at a generator's site, required pursuant to section 67100.4(a) completed according to the format established by the Department of Toxic Substances Control in section 67100.5 of these regulations. Plans do both of the following:

(1) Determine any alternatives to, or modifications of, the generator's processes, operations, and procedures that may be implemented to reduce the amount of hazardous waste generated.

(2) Include a plan to document and implement source reduction measures for the hazardous wastes specified in paragraph (1) which are technically feasible and economically practicable for the generator, including a reasonable implementation schedule.

§67100.2. Applicability.

(a) This article applies to generators who, by site, routinely generate, through ongoing processes and operations, more than 12,000 kilograms of hazardous waste in the reporting year, or more than 12 kilograms of extremely hazardous waste in a reporting year.

(b) A generator may petition the Department of Toxic Substances Control in writing to exempt a hazardous waste stream. The generator shall provide documentation to demonstrate that no source reduction opportunities exist for the requested waste stream exemption. The Department of Toxic Substances Control shall public notice the proposed acceptance of any exemption petition. A minimum of 45 days shall be provided for public review and comment prior to the Department of Toxic Substances Control rendering any determination on a petition.

(c) The following hazardous wastes shall not be included in calculating the volume, or comparable weight of waste produced and are not subject to this article:

(1) The following exempted hazardous waste streams:

(A) Motor vehicle fluids and motor vehicle filters.

(B) Lead acid batteries.

(C) Household hazardous wastes, wastes from household collection events and wastes separated at community landfills.

(D) Waste pesticides and pesticide containers collected by County agricultural commissioners.

(E) Spent munitions and ordnance.

(F) Decommissioned utility poles.

(G) Oil generated from decommissioned refrigeration units.

(H) Mercury relays and low-level radioactive tubes generated from removal of telephone equipment.

(I) Lighting wastes including ballasts and fluorescent tubes.

(2) The following hazardous waste streams that are not routinely generated:

(A) Waste from site cleanup and mitigation activities including remedial investigations.

(B) Samples and evidence from enforcement actions.

(C) Asbestos.

(D) PCBs

(E) Formation fluids and solids from oil, gas and geothermal exploration and field development.

(F) Demolition waste/major renovation waste.

(G) Waste generated from emergency response actions.

(H) Waste generated from laboratory scale research.

(3) Medical Waste.

(d) When there is a change in ownership of the business, institution, or facility, the new owner shall have six months from the date of purchase to amend or rewrite the plan and the report. If the new owner fails to revise the plan and report during this time, the existing plan and report shall remain in effect.

(e) When there is a change in the state or federal analysis and testing criteria which causes additional materials to be classified as hazardous waste, these newly classified hazardous wastes shall be considered in calculating the volume, or comparable weight of hazardous waste produced at the generator's site starting the next reporting year.

(f) Any generator that is a small business may complete the forms contained in the documents

listed below and include sections 1, 3, 4, 5, and 6 of the Compliance Checklist Form, September 1993, or January 1997, as the plan. Documents for specific industries are available from the Department of Toxic Substances Control. The generator's most recent biennial report, as required by section 66262.41 can be used as the report required by this article. The following are available from the Department of Toxic Substances Control and are hereby incorporated by reference:

(1) Waste Audit Study -- Automotive Repairs, May, 1987

(2) Waste Audit Study -- Automotive Paint Shops, January, 1987

(3) Waste Audit Study -- General Medical and Surgical Hospitals, August, 1988

(4) Waste Audit Study -- Paint Manufacturing Industry, April, 1987

(5) Waste Audit Study -- Drug Manufacturing and Processing Industry, May, 1989

(6) Waste Audit Study -- Metal Finishing Industry, May, 1988

(7) Waste Audit Study -- Pesticide Formulating Industry, November, 1987

(8) Waste Audit Study -- Research and Educational Institutions, August, 1988

(9) Waste Audit Study -- Photo processing Industry, April, 1989

(10) Waste Audit Study -- Fiberglass-Reinforced and Composite Plastic Products, April, 1989

(11) Waste Audit Study -- Marine yards for Maintenance and Repair, August, 1989

(12) Waste Audit Study -- Building Construction Industry, May, 1990

(13) Waste Audit Study -- Fabricated Metal Products Industry, August, 1989

(14) Waste Audit Study -- Gold, Silver, Platinum and Other Precious Metals Product and Reclamation, June, 1990

(15) Waste Audit Study -- Mechanical Equipment Repair Shops, May, 1990

(16) Hazardous Waste Reduction Assessment Handbook -- Auto Repair Shops, October, 1988

(17) Hazardous Waste Reduction Checklist -- Auto Repair Shops, October, 1988

(18) Hazardous Waste Reduction Checklist & Assessment Manual for the Metal Finishing Industry, September, 1989

(19) Waste Audit Study -- Printed Circuit Board Manufacturers, June, 1987

(20) Waste Audit Study -- Commercial Printing Industry, May, 1989

(21) Waste Audit Study -- Thermal Metal Working Industry, December, 1990

(22) Hazardous Waste Reduction Checklist & Assessment Manual for Pesticide Formulators, June, 1990

(23) Facility Pollution Prevention Guide, EPA/600/R-92/088, May, 1992

(g) Any generator that is a small business may alternatively complete the Compliance Checklist Form, September 1993, or January 1997, developed by the Department of Toxic Substances Control as the plan.

(h) If a generator owns or operates multiple sites with similar processes, operations, and wastes the generator may prepare a single multisite review and plan, report, or compliance checklist addressing all of these sites.

(i) If a generator owns a large site with multiple operations that are managed as independent businesses, the generator may prepare a separate review and plan, report, or compliance checklist for each independently managed business at the site.

(j) Generators subject to the requirements of this article pursuant to section 67100.4(a) and 67100.7(a) may prepare a single document combining the requirements for the plan and the report.

§67100.3. Availability Requirements.

(a) Every generator shall retain a copy of the current review and plan, report, summary progress report and compliance checklist at each site, or, for a multisite at a central location, and upon request, shall make it available to any authorized representative of the Department of Toxic Substances Control and any other officer or agency conducting an inspection pursuant to Section 25185 of the Health and Safety Code.

(b) A copy of the plan, report and summary progress report and compliance checklist shall be made available locally for public review. This may be accomplished by making documents available at the generator's facility, at a public library or at the offices of any local governmental

agency which is willing to act as a repository for this information. If any of the above documents contain trade secrets, then a copy which excludes trade secrets shall be made available locally for public review.

§67100.4. Plan.

(a) On or before September 1, 1991 and every four years thereafter that hazardous or extremely hazardous waste generation exceeds the thresholds in section 67100.2(a) of these regulations, each generator shall conduct a source reduction evaluation review and plan pursuant to section 67100.5 of these regulations.

(b) Except as provided in sections 67100.2(h) and 67100.2(i) of these regulations, a source reduction evaluation review and plan shall be prepared for each site.

(c) At the time a review and plan is submitted to the Department, the generator shall certify that the generator has implemented, is implementing, or will be implementing, the source reduction measures identified in the review and plan according to the implementation schedule contained in the review and plan. A generator may determine not to implement a source reduction measure selected in section 67100.5(m) of these regulations only if the generator determines, upon conducting further analysis or due to unexpected circumstances, that the selected measure is not technically feasible or economically practicable, or if attempts to implement that measure reveal that the measure would result in, or has resulted in, any of the following:

(1) An increase in the generation of hazardous waste.

(2) An increase in release of hazardous chemicals to other environmental media.

(3) Adverse impacts on product quality.

(4) A significant increase in the risk of an adverse impact to human health or the environment.

(d)If the generator elects not to implement the review and plan, including, but not limited to, a selected measure pursuant to section 67100.5(m) of these regulations, the generator shall amend its review and plan within 90 days to reflect this rejection and include in the review and plan proper documentation identifying the rationale for this rejection.

§67100.5. Plan Format.

Except as provided in section 67100.2(f) of these regulations, generators subject to the requirements of this article pursuant to section 67100.2(a), shall prepare a plan with sufficient detail to convey an understanding of the source reduction evaluation review and analysis performed, using narratives, photographs, illustrations, figures or data as necessary, which includes, but is not limited to, all of the following:

(a) Name and location of the site, telephone number and Identification Number.

(b) Four digit SIC codes applicable to activities at the site.

(c) Type of business or activity conducted at each site.

(d) Length of time the company has been in business at the present site.

(e) Major products manufactured or services provided and, if necessary to convey an understanding of the business, their general applications or examples of their applications or end use.

(f) Number of employees.

(g) A general description of site operations with corresponding block diagrams focusing on quantity and type of hazardous wastes, raw materials, and final products produced at the site.

(h) Identification of all routinely generated hazardous waste streams in the current reporting year which result from ongoing processes or operations that have a yearly volume, or comparable weight exceeding five percent of the total yearly volume, or comparable weight of hazardous waste generated at the site, or, for extremely hazardous waste, five percent of the total yearly volume, or comparable weight generated at the site. Similar industrial processes or institutional activities generating similar wastes (with the same California Waste Codes) shall be considered a single waste stream for purposes of this subsection.

(i) All of the following information for each hazardous waste stream identified in subsection (h) of this section:

(1) An estimate of the weight, in pounds of hazardous waste generated.

(2) The applicable California waste code.

(3) The processes, operations and activities generating the waste(s), with corresponding block

diagrams to illustrate the basis of generation including a listing of all input materials which contribute to the generation of hazardous or extremely hazardous waste (this is not meant to be a mass balance).

(j) An evaluation of source reduction measures available to the generator which are potentially viable. The evaluation shall consider at least all of the following approaches:

(1) Input changes.

(2) Operational improvement.

(3) Production process changes.

(4) Product reformulation.

(5) Administrative steps taken to reduce hazardous waste generation including but not limited to:

(A) Inventory control;

(B) Employee award programs;

(C) Employee training;

(D) In-house policies;

(E) Corporate or management commitment; and

(F) Other programs or measures.

(k) Consideration of the following factors for each measure evaluated in accordance with subsection (j) of this section (where a specific factor does not apply identify as N/A):

(1) Expected change in the amount of hazardous waste generated;

(2) Technical feasibility;

(3) Economic evaluation:

(A) Capital cost, operating cost, waste management cost;

(B) Return on investment (ROI), breakdown point, avoided cost, pretax payback period, or any other economic comparison method;

(4) Effects on product quality;

(5) Employee health and safety implications;

(6) Permits, variances, compliance schedules or applicable state local and federal agencies;

(7) Releases and discharges.

(l) Any pertinent information, such as waste stream constituents and concentration of constituents, needed to evaluate and implement source reduction measures.

(m) A specification of, and a rationale for, the technically feasible and economically practicable source reduction measures which will be taken by the generator with respect to each hazardous waste stream identified in subsection (h) of this section. The specification should include at a minimum, a narrative description of the factors in subsection (k) of this section and also address system capacity and efficiency. Photographs, illustrations, figures or data should be used to convey an understanding of the source reduction measure in sufficient detail to allow transfer of the measure to other generators with similar processes or procedures.

(n) An evaluation, and, to the extent practicable, a qualification of the effects of any source reduction measure selected in subsection (m) on emissions and discharges to air, water, or land.

(o) A list of each measure considered but not selected for a detailed evaluation as a potentially viable source reduction measure. For each measure rejected, explain the generator's rationale. This list shall be supplemented for waste streams where no measures were identified with a narrative demonstrating the good faith efforts undertaken to identify measures.

(p) A timetable for making reasonable and measurable progress towards implementation of the selected source reduction measures specified in subsection (m) of this section. It shall also include an implementation schedule for completing the evaluation of potentially viable source reduction measures and it shall prioritize processes and wastes for future research, development and source reduction analysis.

(q) All plans prepared after January 1, 1993 shall contain a four-year numerical goal for reducing the generation of hazardous waste streams through the selected source reduction measures specified in subsection (m) of this section.

§67100.7. Report.

(a) On or before September 1, 1991, and every four years thereafter that hazardous or extremely hazardous waste generation exceeds the thresholds in section 67100.2(a) of these regulations, each generator shall prepare a hazardous waste management performance report pursuant to section 67100.8 of these regulations.

(b) Except as provided in sections 67100.2(h) and 67100.2(i) of these regulations, the hazardous

waste management performance report shall be prepared for each site.

§67100.8. Report Format.

(a) Except as provided in section 67100.2(f) of these regulations and in subsection (b) of this section, each generator shall prepare a report with sufficient detail to convey an understanding of the hazardous waste management approaches used at the site, using narratives, photographs, illustrations, figures or data as necessary, which includes, at a minimum, all of the following:

(1) Name and location of the site

(2) Four digit SIC code(s) for the site

(3) All of the following information for each waste stream identified pursuant to section 67100.5(h) of these regulations:

(A) An estimate, in pounds, of the quantity of hazardous waste generated and the quantity of hazardous waste managed, both onsite and offsite, during the current reporting year and the baseline year.

(B) A description of current hazardous waste management approaches and identification of all approaches implemented since the baseline year.

(C) An assessment of the effect, since the baseline year, of each implemented hazardous waste management approach on the weight of hazardous waste generated, the properties which cause it to be classified as a hazardous waste and/or the onsite and offsite management of hazardous waste. The report shall consider, but shall not be limited to all of the following approaches:

1. Source reduction;

2. Onsite or offsite recycling;

3. Onsite or offsite treatment.

(D) A description of factors during the current reporting year that have affected hazardous waste generation and onsite and offsite hazardous waste management since the baseline year, including, but not limited to, any of the following:

1. Changes in business activity;

2. Changes in waste classification;

3. Natural phenomena and;

4. Other factors that have affected either the quantity of hazardous waste generated or onsite and offsite hazardous waste management requirements.

(b) If the generator selects the current reporting year as the baseline year, the information required pursuant to subsection (a)(3) of this section shall be provided for the reporting year only.

67100.9 Summary Progress Report.

(a) Generators subject to the requirements of this article shall prepare a summary progress report and submit it to the Department of Toxic Substances Control on or before September 1, 1999 and every four years thereafter.

(b) Generators shall complete the Department of Toxic Substances Control's Form # 1262 (12/02) titled, "Summary Progress Report" as their summary progress report. This document is incorporated by reference.

(c) The director, in consultation with the Secretary for Environmental Protection, shall, within five years of the effective date of the regulations in this section, determine whether the regulations should be retained, revised, or repealed.

§67100.13. Certification Requirements.

(a) The review and plan, report, and compliance checklist, completed pursuant to this article shall be reviewed by an engineer who is registered as a professional engineer pursuant to section 6762 of the Business and Professions Code, by an individual who is responsible for the processes and operations of the site, or by an environmental assessor who is registered pursuant to section 25570 Health and Safety Code.

(b) The engineer, individual, or environmental assessor shall certify the review and plan only if the review and plan meet all of the following requirements:

(1) The review and plan addresses each hazardous waste stream identified pursuant to section 67100.5(h) of these regulations.

(2) The review and plan addresses the source reduction approaches specified in section 67100.5(j) of these regulations.

(3) The plan clearly sets forth the measures to be taken with respect to each hazardous waste stream for which source reduction has been found to be technically feasible and economically practicable, with timetables for making reasonable and measurable progress, and documents the rationale for rejecting available source reduction measures.

(4) The plan does not merely shift hazardous

waste from one environmental medium to another environmental medium by increasing emissions or discharges to air, water, or land.

(c) The engineer, individual, or environmental assessor shall certify that compliance checklist has been completed.

(d) The engineer, individual, or environmental assessor shall certify the report only if the report meets the following requirement:

(1) The report identifies factors that affect the generation and onsite and offsite management of hazardous wastes and summarizes the effect of those factors on the generation and onsite and offsite management of hazardous wastes.

(e) The plan, report, and compliance checklist shall contain the following language signed and dated by either the owner, the operator, or the responsible corporate officer of the site or an authorized individual; who is capable of committing financial resources necessary to implement the source reduction measures:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for making false statements or representations to the Department, including the possibility of fines for criminal violations."

§67100.14. Trade Secrets.

(a) Any information submitted to the Department pursuant to this article may be claimed as confidential by the generator. Any such claim shall be asserted at the time of submission by placing the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the Department shall make the information available to the public without further notice. If a claim is asserted, the information shall be treated in accordance with 40 CFR part 2 and the Health and Safety Code, sections 25173 and 25244.23.

(b) If a claim of confidentiality is asserted, two versions of the document shall be submitted: one version with the confidential pages and one version without the confidential pages but with a clear indication of which pages are removed as confidential.

Appendix C Standard Industrial Classification Codes

The Standard Industrial Classification (SIC) codes listed below were last updated in 1987. Beginning in 1997, the SIC was replaced by the **North American Industry Classification System (NAICS)**. The NAICS is an extensive six-digit code system developed to capture newer industries and categorize industries on a production/process-oriented basis. NAICS codes can be found on the internet http://www.census.gov/epcd/www/naics.html or http://www.naics.com.

Agricultural Production--Crops

0111 Wheat
0112 Rice
0115 Corn
0116 Soybeans
0119 Cash grains, not elsewhere classified (nec)
0131 Cotton
0132 Tobacco
0133 Sugar cane and sugar beets
0134 Irish potatoes
0139 Field crops, except cash grains, nec
0161 Vegetables and melons
0171 Berry crops
0172 Grapes
0173 Tree nuts
0174 Citrus fruits
0175 Deciduous tree fruits
0179 Fruits and tree nuts, nec
0181 Ornamental nursery products
0182 Food crops grown under cover
0191 General farms, primarily crops

Agricultural Production--Livestock

0211 Beef cattle feedlots
0212 Beef cattle, except feedlots
0213 Hogs
0214 Sheep and goats
0219 General livestock, nec
0241 Dairy farms
0251 Broiler, fryer, and roaster chickens
0252 Chicken eggs
0253 Turkeys and turkey eggs
0254 Poultry hatcheries
0259 Poultry and eggs, nec
0271 Fur-bearing animals and rabbits
0272 Horses and other equines
0273 Animal aquaculture
0279 Animal specialties, nec
0291 General farms, primarily animal

Agricultural Services

0711 Soil preparation services
0721 Crop planting and protecting
0722 Crop harvesting
0723 Crop preparation services for market
0724 Cotton ginning
0741 Veterinary services, for livestock
0742 Veterinary services, specialties
0751 Livestock services, except veterinary
0752 Animal specialty services
0761 Farm labor contractors
0762 Farm management services
0781 Landscape counseling and planning
0782 Lawn and garden services
0783 Ornamental shrub and tree services

Forestry

0811 Timber tracts
0831 Forest products
0851 Forestry services

Fishing, Hunting, and Trapping

0912 Finfish
0913 Shellfish
0919 Miscellaneous marine products
0921 Fish hatcheries and preserves
0971 Hunting, trapping, game propagation

Metal Mining

1011 Iron ores
1021 Copper ores
1031 Lead and zinc ores
1041 Gold ores
1044 Silver ores
1061 Ferroalloy ores, except vanadium
1081 Metal mining services
1094 Uranium, radium, vanadium ores
1099 Metal ores, nec

Coal Mining

1221 Bituminous coal and lignite - surface
1222 Bituminous coal - underground
1231 Anthracite mining
1241 Coal mining services

Oil and Gas Extraction

1311 Crude petroleum and natural gas
1321 Natural gas liquids
1381 Drilling oil and gas wells
1382 Oil and gas exploration services
1389 Oil and gas field services, nec

Nonmetallic Minerals, Except Fuels

1411 Dimension stone
1422 Crushed and broken limestone
1423 Crushed and broken granite
1429 Crushed and broken stone, nec
1442 Construction sand and gravel
1446 Industrial sand
1455 Kaolin and ball clay
1459 Clay and related minerals, nec
1474 Potash, soda and borate minerals
1475 Phosphate rock
1479 Chemical and fertilizer mining, nec
1481 Nonmetallic minerals services
1499 Miscellaneous nonmetallic minerals, nec

General Building Contractors

1521 Single-family housing construction
1522 Residential construction, nec
1531 Operative builders
1541 Industrial buildings and warehouses
1542 Nonresidential construction, nec

Heavy Construction, Excluding Buildings

1611 Highway and street construction
1622 Bridge, tunnel, and elevated highway
1623 Water, sewer, and utility lines
1629 Heavy construction, nec

Special Trade Contractors

1711 Plumbing, heating, air conditioning
1721 Painting and paper hanging
1731 Electrical work
1741 Masonry and other stonework
1742 Plastering, drywall, and insulation
1743 Terrazzo, tile, marble, mosaic work
1751 Carpentry work
1752 Floor laying and floor work, nec
1761 Roofing, siding, and sheet metal work
1771 Concrete work
1781 Water well drilling
1791 Structural steel erection
1793 Glass and glazing work
1794 Excavation work
1795 Wrecking and demolition work
1796 Installing building equipment, nec
1799 Special trade contractors, nec

Food and Kindred Products

2011 Meat packing plants
2013 Sausages and other prepared meats
2015 Poultry slaughtering and processing
2021 Creamery butter
2022 Cheese, natural and processed
2023 Dry, condensed, evaporated products

2024 Ice cream and frozen desserts
2026 Fluid milk
2032 Canned specialties
2033 Canned fruits and vegetables
2034 Dehydrated fruits, vegetables, soups
2035 Pickles, sauces, and salad dressings
2037 Frozen fruits and vegetables
2038 Frozen specialties, nec
2041 Flour and other grain mill products
2043 Cereal breakfast foods
2044 Rice milling
2045 Prepared flour mixes and doughs
2046 Wet corn milling
2047 Dog and cat food
2048 Prepared feeds, nec
2051 Bread, cake, and related products
2052 Cookies and crackers
2053 Frozen bakery products, except bread
2061 Raw cane sugar
2062 Cane sugar refining
2063 Beet sugar
2064 Candy and other confectionery products
2066 Chocolate and cocoa products
2067 Chewing gum
2068 Salted and roasted nuts and seeds
2074 Cottonseed oil mills
2075 Soybean oil mills
2076 Vegetable oil mills, nec
2077 Animal and marine fats and oils
2079 Edible fats and oils, nec
2082 Malt beverages
2083 Malt
2084 Wines, brandy, and brandy spirits
2085 Distilled and blended liquors
2086 Bottled and canned soft drinks
2087 Flavoring extracts and syrups, nec
2091 Canned and cured fish and seafood
2092 Fresh or frozen prepared fish
2095 Roasted coffee
2097 Manufactured ice
2098 Macaroni and spaghetti
2099 Food preparations, nec

Tobacco Products

2111 Cigarettes
2121 Cigars
2131 Chewing and smoking tobacco
2141 Tobacco stemming and redrying

Textile Mill Products

2211 Broadwoven fabric mills, cotton
2221 Broadwoven fabric mills, man-made
2231 Broadwoven fabric mills, wool
2241 Narrow fabric mills
2251 Women's hosiery, except socks
2252 Hosiery, nec
2253 Knit outerwear mills
2254 Knit underwear mills
2257 Weft knit fabric mills
2258 Lace and warp knit fabric mills
2259 Knitting mills, nec
2261 Finishing plants, cotton
2262 Finishing plants, man-made
2269 Finishing plants, nec
2273 Carpets and rugs
2281 Yarn spinning mills
2282 Throwing and winding mills
2284 Thread mills
2295 Coated fabrics, not rubberized
2296 Tire cord and fabrics
2297 Nonwoven fabrics
2298 Cordage and twine
2299 Textile goods, nec

Apparel and Other Textile Products

2311 Men's and boys' suits and coats
2321 Men's and boys' shirts
2322 Men's and boys' underwear and nightwear
2323 Men's and boys' neckwear
2325 Men's and boys' trousers and slacks
2326 Men's and boys' work clothing
2329 Men's and boys' clothing, nec
2331 Women's and misses' blouses and shirts
2335 Women's, juniors' and misses' dresses
2337 Women's and misses' suits and coats
2339 Women's and misses' outerwear, nec

2341 Women's and children's underwear
2342 Bras, girdles, and allied garments
2353 Hats, caps, and millinery
2361 Girls' and children's dresses, blouses
2369 Girls' and children's outerwear, nec
2371 Fur goods
2381 Fabric dress and work gloves
2384 Robes and dressing gowns
2385 Waterproof outerwear
2386 Leather and sheep lined clothing
2387 Apparel belts
2389 Apparel and accessories, nec
2391 Curtains and draperies
2392 House furnishing, nec
2393 Textile bags
2394 Canvas and related products
2395 Pleating and stitching
2396 Automotive and apparel trimmings
2397 Schiffli machine embroideries
2399 Fabricated textile products, nec

Lumber and Wood Products

2411 Logging
2421 Sawmills and planing mills, general
2426 Hardwood dimension and flooring mills
2429 Special product sawmills, nec
2431 Millwork
2434 Wood kitchen cabinets
2435 Hardwood veneer and plywood
2436 Softwood veneer and plywood
2439 Structural wood members, nec
2441 Nailed wood boxes and shook
2448 Wood pallets and skids
2449 Wood containers, nec
2451 Mobile homes
2452 Prefabricated wood buildings
2491 Wood preserving
2493 Reconstituted wood products
2499 Wood products, nec

Furniture and Fixtures

2511 Wood household furniture
2512 Upholstered household furniture
2514 Metal household furniture
2515 Mattresses and bedsprings
2517 Wood TV and radio cabinets
2519 Household furniture, nec
2521 Wood office furniture
2522 Office furniture, except wood
2531 Public building and related furniture
2541 Wood partitions and fixtures
2542 Partitions and fixtures, except wood
2591 Drapery hardware and blinds and shades
2599 Furniture and fixtures, nec

Paper and Allied Products

2611 Pulp mills
2621 Paper mills
2631 Paperboard mills
2652 Set-up paperboard boxes
2653 Corrugated and solid fiber boxes
2655 Fiber cans, drums, and similar products
2656 Sanitary food containers
2657 Folding paperboard boxes
2671 Paper coated and laminated, packaging
2672 Paper coated and laminated, nec
2673 Bags - plastics, laminated and coated
2674 Bags - uncoated paper and multiwall
2675 Die-cut paper and board
2676 Sanitary paper products
2677 Envelopes
2678 Stationery products
2679 Converted paper products, nec

Printing and Publishing

2711 Newspapers
2721 Periodicals
2731 Book publishing
2732 Book printing
2741 Miscellaneous publishing
2752 Commercial printing, lithographic
2754 Commercial printing, gravure
2759 Commercial printing, nec
2761 Manifold business forms
2771 Greeting cards
2782 Blank books and loose-leaf binders

2789 Bookbinding and related work
2791 Typesetting
2796 Plate making services

Chemicals and Allied Products
2812 Alkalies and chlorine
2813 Industrial gases
2816 Inorganic pigments
2819 Industrial inorganic chemicals, nec
2821 Plastics materials and resins
2822 Synthetic rubber
2823 Cellulosic man-made fibers
2824 Organic fibers, noncellulosic
2833 Medicinals and botanicals
2834 Pharmaceutical preparations
2835 Diagnostic substances
2836 Biological products, except diagnostic
2841 Soap and other detergents
2842 Polishes and sanitation goods
2843 Surface active agents
2844 Toilet preparations
2851 Paints and allied products
2861 Gum and wood chemicals
2865 Cyclic crudes and intermediates
2869 Industrial organic chemicals, nec
2873 Nitrogenous fertilizers
2874 Phosphatic fertilizers
2875 Fertilizers, mixing only
2879 Agricultural chemicals, nec
2891 Adhesives and sealants
2892 Explosives
2893 Printing ink
2895 Carbon black
2899 Chemical preparations, nec

Petroleum and Coal Products
2911 Petroleum refining
2951 Asphalt paving mixtures and blocks
2952 Asphalt felts and coatings
2992 Lubricating oils and greases
2999 Petroleum and coal products, nec

Rubber and Miscellaneous Plastic Products
3011 Tires and inner tubes
3021 Rubber and plastics footwear
3052 Rubber and plastics hose and belting
3053 Gaskets, packing and sealing devices
3061 Mechanical rubber goods
3069 Fabricated rubber products, nec
3081 Unsupported plastics, film and sheet
3082 Unsupported plastics, profile shapes
3083 Laminated plastics, plate and sheet
3084 Plastics, pipe
3085 Plastics, bottles
3086 Plastics, foam products
3087 Custom compound purchased resins
3088 Plastics, plumbing fixtures
3089 Plastics products, nec

Leather and Leather Products
3111 Leather tanning and finishing
3131 Footwear, cut stock
3142 House slippers
3143 Men’s footwear, except athletic
3144 Women’s footwear, except athletic
3149 Footwear, except rubber, nec
3151 Leather gloves and mittens
3161 Luggage
3171 Women’s handbags and purses
3172 Personal leather goods, nec
3199 Leather goods, nec

Stone, Clay, and Glass Products
3211 Flat glass
3221 Glass containers
3229 Pressed and blown glass, nec
3231 Products of purchased glass
3241 Cement, hydraulic
3251 Brick-and structural clay tile
3253 Ceramic wall and floor tile
3255 Clay refractories
3259 Structural clay products, nec
3261 Vitreous plumbing fixtures
3262 Vitreous china table and kitchenware
3263 Semivitreous table and kitchenware

3464 Porcelain electrical supplies
3269 Pottery products, nec
3271 Concrete block and brick
3272 Concrete products, nec
3273 Ready-mixed concrete
3274 Lime
3275 Gypsum products
3281 Cut stone and stone products
3291 Abrasive products
3292 Asbestos products
3295 Minerals, ground or treated
3296 Mineral wool
3297 Nonclay refractories
3299 Nonmetallic mineral products, nec

Primary Metal Industries

3312 Blast furnaces and steel mills
3313 Electrometallurgical products
3315 Steel wire and related products
3316 Cold finishing of steel shapes
3317 Steel pipe and tubes
3321 Gray and ductile iron foundries
3322 Malleable iron foundries
3324 Steel investment foundries
3325 Steel foundries, nec
3331 Primary copper
3334 Primary aluminum
3339 Primary nonferrous metals, nec
3341 Secondary nonferrous metals
3351 Copper rolling and drawing
3353 Aluminum sheet, plate, and foil
3354 Aluminum extruded products
3355 Aluminum rolling and drawing, nec
3356 Nonferrous rolling and drawing, nec
3357 Nonferrous wire drawing and insulating
3363 Aluminum die-castings
3364 Nonferrous die-castings, except aluminum
3365 Aluminum foundries
3366 Copper foundries
3369 Nonferrous foundries, nec
3398 Metal heat treating
3399 Primary metal products, nec

Fabricated Metal Products

3411 Metal cans
3412 Metal barrels, drums, and pails
3421 Cutlery
3423 Hand and edge tools, nec
3425 Saw blades and handsaws
3429 Hardware, nec
3431 Metal sanitary ware
3432 Plumbing fixture fittings and trim
3433 Heating equipment, except electric
3441 Fabricated structural metal
3442 Metal doors, sash, and trim
3443 Fabricated plate work (boiler shops)
3444 Sheet metal work
3446 Architectural metal work
3448 Prefabricated metal buildings
3449 Miscellaneous metal work
3451 Screw machine products
3452 Bolts, nuts, rivets, and washers
3462 Iron and steel forging
3463 Nonferrous forging
3465 Automotive stamping
3466 Crowns and closures
3469 Metal stamping, nec
3471 Plating and polishing
3479 Metal coating and allied services
3482 Small arms ammunition
3483 Ammunition, except for small arms, nec
3484 Small arms
3489 Ordnance and accessories, nec
3491 Industrial valves
3492 Fluid power valves and hose fittings
3493 Steel springs, except wire
3494 Valves and pipe fittings, nec
3495 Wire springs
3496 Miscellaneous fabricated wire products
3497 Metal foil and leaf
3498 Fabricated pipe and fittings
3499 Fabricated metal products, nec

Industrial Machinery and Equipment

3511 Turbines and turbine generator sets
3519 Internal combustion engines, nec

3523 Farm machinery and equipment
3524 Lawn and garden equipment
3531 Construction machinery
3532 Mining machinery
3533 Oil and gas field machinery
3534 Elevators and moving stairways
3535 Conveyors and conveying equipment
3536 Hoists, cranes, and monorails
3537 Industrial trucks and tractors
3541 Machine tools, metal cutting types
3542 Machine tools, metal forming types
3543 Industrial patterns
3544 Special dies, tools, jigs, and fixture
3545 Machine tool accessories
3546 Power driven hand tools
3547 Rolling mill machinery
3548 Welding apparatus
3549 Metalworking machinery, nec
3552 Textile machinery
3553 Woodworking machinery
3554 Paper industries machinery
3555 Printing trades machinery
3556 Food products machinery
3559 Special industry machinery, nec
3561 Pumps and pumping equipment
3562 Ball and roller bearings
3563 Air and gas compressors
3564 Blowers and fans
3565 Packaging machinery
3566 Speed changers, drives, and gears
3567 Industrial furnaces and ovens
3568 Power transmission equipment, nec
3569 General industrial machinery, nec
3571 Electronic computers
3572 Computer storage devices
3575 Computer terminals
3577 Computer peripheral equipment, nec
3578 Calculating and accounting equipment
3579 Office machines, nec
3581 Automatic vending machines
3582 Commercial laundry equipment
3585 Refrigeration and heating equipment
3586 Measuring and dispensing pumps
3589 Service industry machinery, nec
3592 Carburetors, pistons, rings, valves
3593 Fluid power cylinders and actuators
3594 Fluid power pumps and motors
3596 Scales and balances, except laboratory
3599 Industrial machinery, nec

Electronic and Other Electric Equipment

3612 Transformers, except electronic
3613 Switchgear and switchboard apparatus
3621 Motors and generators
3624 Carbon and graphite products
3625 Relays and industrial controls
3629 Electrical industrial apparatus, nec
3631 Household cooking equipment
3632 Household refrigerators and freezers
3633 Household laundry equipment
3634 Electric housewares and fans
3635 Household vacuum cleaners
3639 Household appliances, nec
3641 Electric lamps
3643 Current-carrying wiring devices
3644 Noncurrent-carrying wiring devices
3645 Residential lighting fixtures
3646 Commercial lighting fixtures
3647 Vehicular lighting equipment
3648 Lighting equipment, nec
3651 Household audio and video equipment
3652 Prerecorded records and tapes
3661 Telephone and telegraph apparatus
3663 Radio and TV communication equipment
3669 Communications equipment, nec
3671 Electron tubes
3672 Printed circuit boards
3674 Semiconductors and related devices
3675 Electronic capacitors
3676 Electronic resistors
3677 Electronic coils and transformers
3678 Electronic connectors
3679 Electronic components, nec
3691 Storage batteries
3692 Primary batteries, dry and wet
3694 Engine electrical equipment

3695 Magnetic and optical recording media
3699 Electrical equipment and supplies, nec

Transportation Equipment

3711 Motor vehicles and car bodies
3713 Truck and bus bodies
3714 Motor vehicle parts and accessories
3715 Truck trailers
3716 Motor homes
3721 Aircraft
3724 Aircraft engines and engine parts
3728 Aircraft parts and equipment, nec
3731 Ship building and repairing
3732 Boat building and repairing
3743 Railroad equipment
3751 Motorcycles, bicycles, and parts
3761 Guided missiles and space vehicles
3764 Space propulsion units and parts
3769 Space vehicle equipment, nec
3792 Travel trailers and campers
3795 Tanks and tank components
3799 Transportation equipment, nec

Instruments and Related Products

3812 Search and navigation equipment
3821 Laboratory apparatus and furniture
3822 Environmental controls
3823 Process control instruments
3824 Fluid meters and counting devices
3825 Instruments to measure electricity
3826 Analytical instruments
3827 Optical instruments and lenses
3829 Measuring and controlling devices, nec
3841 Surgical and medical instruments
3842 Surgical appliances and supplies
3843 Dental equipment and supplies
3844 X-ray apparatus and tubes
3845 Electromedical equipment
3851 Ophthalmic goods
3861 Photographic equipment and supplies
3873 Watches, clocks, watchcases, and parts

Miscellaneous Manufacturing Industries

3911 Jewelry, precious metal
3914 Silverware and plated ware
3915 Jewelers' materials and lapidary work
3931 Musical instruments
3942 Dolls and stuffed toys
3944 Games, toys, and children's vehicles
3949 Sporting and athletic goods, nec
3951 Pens and mechanical pencils
3952 Lead pencils and art goods
3953 Marking devices
3955 Carbon paper and inked ribbons
3961 Costume jewelry
3965 Fasteners, buttons, needles, and pins
3991 Brooms and brushes
3993 Signs and advertising specialties
3995 Burial caskets
3996 Hard surface floor coverings, nec
3999 Manufacturing industries, nec

Railroad Transportation

4011 Railroads, line-haul operating
4013 Switching and terminal devices

Local and Interurban Passenger Transit

4111 Local and suburban transit
4119 Local passenger transportation, nec
4121 Taxicabs
4131 Intercity and rural bus transportation
4141 Local bus charter service
4142 Bus charter service, except local
4151 School buses
4173 Bus terminal and service facilities

Trucking and Warehousing

4212 Local trucking, without storage
4213 Trucking, except local
4214 Local trucking with storage
4215 Courier services, except by air
4221 Farm product warehousing and storage
4222 Refrigerated warehousing and storage
4225 General warehousing and storage
4226 Special warehousing and storage, nec
4231 Trucking terminal facilities

U.S. Postal Service

4311 U.S. Postal Service

Water Transportation

4412 Deep sea foreign transportation of freight
4424 Deep sea domestic trans. of freight
4432 Freight transportation, on the Great Lakes
4449 Water transportation of freight, nec
4481 Deep sea passenger trans., except ferry
4482 Ferries
4489 Water passenger transportation, nec
4491 Marine cargo handling
4492 Towing and tugboat service
4493 Marinas
4499 Water transportation services, nec

Transportation by Air

4512 Air transportation, scheduled
4513 Air courier services
4522 Air transportation, nonscheduled
4581 Airports, flying fields, and services

Pipelines, Except Natural Gas

4612 Crude petroleum pipelines
4613 Refined petroleum pipelines
4619 Pipelines, nec

Transportation Services

4724 Travel agencies
4725 Tour operators
4729 Passenger transportation arrangement, nec
4731 Freight transportation arrangement
4741 Rental of railroad cars
4783 Packing and crating
4785 Inspection and fixed facilities
4789 Transportation services, nec

Communications

4812 Radiotelephone communications
4813 Telephone communications, except radio
4822 Telegraph and other communications
4832 Radio broadcasting stations
4833 Television broadcasting stations
4841 Cable and other pay TV services
4899 Communication services, nec

Electric, Gas, and Sanitary services

4911 Electric services
4922 Natural gas transmission
4923 Gas transmission and distribution
4924 Natural gas distribution
4925 Gas production and/or distribution
4931 Electric and other services combined
4932 Gas and other services combined
4939 Combination utilities, nec
4941 Water supply
4952 Sewerage systems
4953 Refuse systems
4959 Sanitary services, nec
4961 Steam and air conditioning supply
4971 Irrigation systems

Wholesale Trade, Durable Goods

5012 Automobiles and other motor vehicles
5013 Motor vehicle supplies and new parts
5014 Tires and tubes
5015 Motor vehicle parts, used
5021 Furniture
5023 Home furnishings
5031 Lumber, plywood, and millwork
5032 Brick, stone, and related materials
5033 Roofing, siding, and insulation
5039 Construction materials, nec
5043 Photographic equipment and supplies
5044 Office equipment
5045 Computers, peripherals, and software
5046 Commercial equipment, nec
5047 Medicinal and hospital equipment
5048 Ophthalmic goods
5049 Professional equipment, nec
5051 Metals service centers and offices
5052 Coal and other minerals and ores
5063 Electrical apparatus and equipment
5064 Electrical appliances, TV and radios
5065 Electronic parts and equipment

5072 Hardware
5074 Plumbing and hydronic heating supplies
5075 Warm air heating and air conditioning
5078 Refrigeration equipment and supplies
5082 Construction and mining machinery
5083 Farm and garden machinery
5084 Industrial machinery and equipment
5085 Industrial supplies
5087 Service establishment equipment
5088 Transportation equipment and supplies
5091 Sporting and recreational goods
5092 Toys and hobby goods and supplies
5093 Scrap and waste materials
5094 Jewelry and precious stones
5099 Durable goods, nec

Wholesale Trade, Nondurable Goods
5111 Printing and writing paper
5112 Stationery and office supplies
5113 Industrial and personal service paper
5122 Drugs, proprietaries, and sundries
5131 Piece goods and notions
5136 Men's and boys' clothing
5137 Women's and children's clothing
5139 Footwear
5141 Groceries, general line
5142 Packaged frozen foods
5143 Dairy products, except dried or canned
5144 Poultry and poultry products
5145 Confectionery
5146 Fish and seafood
5147 Meats and meat products
5148 Fresh fruits and vegetables
5149 Groceries and related products, nec
5153 Grain and field beans
5154 Livestock
5159 Farm-product raw materials, nec
5162 Plastics materials and basic shapes
5169 Chemicals and allied products, nec
5171 Petroleum bulk stations and terminals
5172 Petroleum products, nec
5181 Beer and ale
5182 Wines and distilled beverages
5191 Farm supplies
5192 Books, periodicals, and newspapers
5193 Flowers and florists' supplies
5194 Tobacco and tobacco products
5198 Paints, varnishes, and supplies
5199 Nondurable goods, nec

Building Materials and Garden Supplies
5211 Lumber and other building materials
5231 Paint, glass, and wallpaper stores
5251 Hardware stores
5261 Retail nurseries and gardens
5271 Mobile home dealers

General Merchandise Stores
5311 Department stores
5331 Variety stores
5399 Miscellaneous general merchandise stores

Food Stores
5411 Grocery stores
5421 Meat and fish markets
5431 Fruit and vegetable markets
5441 Candy, nut, and confectionery stores
5451 Dairy products stores
5461 Retail bakers
5499 Miscellaneous food stores

Automotive Dealers and Service Stations
5511 New and used car dealers
5521 Used car dealers
5531 Auto and home supply stores
5541 Gasoline service stations
5551 Boat dealers
5561 Recreational vehicle dealers
5571 Motorcycle dealers
5599 Automotive dealers, nec

Apparel and Accessory Stores
5611 Men's and boys' clothing stores
5621 Women's clothing stores
5632 Women's accessory and specialty stores
5641 Children's and infants' wear stores

5651 Family clothing stores
5661 Shoe stores
5699 Miscellaneous apparel and .accessory stores

Furniture and Home furnishings Stores
5712 Furniture stores
5713 Floor covering stores
5714 Drapery and upholstery stores
5719 Miscellaneous home furnishings stores
5722 Household appliance stores
5731 Radio, TV, and electronic stores
5734 Computer and software stores
5735 Record and prerecorded tape stores
5736 Musical instruments stores

Eating and Drinking Places
5812 Eating places
5813 Drinking places

Miscellaneous Retail
5912 Drugstores and proprietary stores
5921 Liquor stores
5932 Used merchandise stores
5941 Sporting goods and bicycle shops
5942 Book stores
5943 Stationery stores
5944 Jewelry stores
5945 Hobby, toy, and game shops
5946 Camera and photographic supply stores
5947 Gift, novelty, and souvenir shops
5948 Luggage and leather goods stores
5949 Sewing, needlework, and piece goods
5961 Catalog and mail order houses
5962 Merchandising machine operators
5963 Direct selling organizations
5983 Fuel oil dealers
5989 Fuel dealers, nec
5984 Liquefied petroleum gas dealers
5992 Florists
5993 Cigar stores and stands
5994 News dealers and newsstands
5995 Optical goods stores
5999 Miscellaneous retail stores, nec

Depository Institutions
6011 Federal Reserve banks
6019 Central reserve depository, nec
6021 National commercial banks
6022 State commercial banks
6029 Commercial banks, nec
6035 Federal savings institutions
6036 Savings institutions, except federal
6061 Federal credit unions
6062 State credit unions
6081 Foreign banks and branches and agencies
6082 Foreign trade and international banks
6091 Nondeposit trust facilities
6099 Functions related to deposit banking

Nondepository Institutions
6111 Federal and federally-sponsored credit
6141 Personal credit institutions
6153 Short-term business credit
6159 Miscellaneous business credit institutions
6162 Mortgage bankers and correspondents
6163 Loan brokers

Security and Commodity Brokers
6211 Security brokers and dealers
221 Commodity contracts brokers, dealers
6231 Security and commodity exchanges
6282 Investment advice
6289 Security and commodity services, nec

Insurance Carriers
6311 Life insurance
6321 Accident and health insurance
6324 Hospital and medical service plans
6331 Fire, marine, and casualty insurance
6351 Surety insurance
6361 Title insurance
6371 Pension, health, and welfare funds
6399 Insurance carriers, nec

Insurance Agents, Brokers, and Service
6411 Insurance agents, brokers, and service

Real Estate

6512 Nonresidential building operators
6513 Apartment building operators
6514 Dwelling operators, except apartments
6515 Mobile home site operators
6517 Railroad property lessors
6519 Real property lessors, nec
6531 Real estate agents and managers
6541 Title abstract offices
6552 Subdividers and developers, nec
6553 Cemetery subdividers and developers

Holding and Other Investment Offices

6712 Bank holding companies
6719 Holding companies, nec
6722 Management investment, open-end
6726 Investment offices, nec
6732 Educational, religious, etc. trusts
6733 Trusts, nec
6792 Oil royalty traders
6794 Patent owners and lessors
6798 Real estate investment trusts
6799 Investors, nec

Hotels and Other Lodging Places

7011 Hotels and motels
7021 Rooming and boarding houses
7032 Sporting and recreational camps
7033 Trailer parks and campsites
7041 Membership-basis organization hotels

Personal Services

7211 Power laundries, family and commercial
7212 Garment pressing and cleaners' agents
7213 Linen supply
7215 Coin-operated laundries and cleaning
7216 Dry cleaning plants, except rug
7217 Carpet and upholstery cleaning
7218 Industrial launderers
7219 Laundry and garment services, nec
7221 Photographic studios, portrait
7231 Beauty shops
7241 Barber shops
7251 Shoe repair and shoeshine shops
7261 Funeral service and crematories
7291 Tax return preparation services
7299 Miscellaneous personal services, nec

Business Services

7311 Advertising agencies
7312 Outdoor advertising services
7313 Radio, TV, publisher representatives
7319 Advertising, nec
7322 Adjustment and collection services
7323 Credit reporting services
7331 Direct mail advertising services
7334 Photocopying and duplicating services
7335 Commercial photography
7336 Commercial art and graphic design
7338 Secretarial and court reporting
7342 Disinfecting and pest control services
7349 Building maintenance services, nec
7352 Medical equipment rental
7353 Heavy construction equipment rental
7359 Equipment rental and leasing, nec
7361 Employment agencies
7363 Help supply services
7371 Computer programming services
7372 Prepackaged software
7373 Computer integrated systems design
7374 Data processing services
7375 Information retrieval services
7376 Computer facilities management
7377 Computer rental and leasing
7378 Computer maintenance and repair
7379 Computer related services, nec
7381 Detective and armored car services
7382 Security systems services
7383 News syndicates
7384 Photofinishing laboratories
7389 Business services, nec

Automotive Repair, Services, and Parking

7513 Truck rental and leasing, no drivers
7514 Passenger car rental
7515 Passenger car leasing

7519 Utility trailer rental
7521 Automobile parking
7532 Top and body repair and paint shops
7533 Auto exhaust system repair shops
7534 Tire retreading and repair shops
7536 Automotive glass replacement shops
7537 Automotive transmission repair shops
7538 General automotive repair shops
7539 Automotive repair shops, nec
7542 Car washes
7549 Automotive services, nec

Miscellaneous Repair Services
7622 Radio and television repair
7623 Refrigeration service and repair
7629 Electrical repair shops, nec
7631 Watch, clock, and jewelry repair
7641 Reupholstery and furniture repair
7692 Welding repair
7694 Armature rewinding shops
7699 Repair services, nec

Motion Pictures
7812 Motion picture and video production
7819 Services allied to motion pictures
7822 Motion picture and tape distribution
7829 Motion picture distribution services
7832 Motion picture theaters except drive-in
7833 Drive-in motion picture theaters
7841 Video tape rental

Amusement and Recreation Services
7911 Dance studios, schools, and halls
7922 Theatrical producers and services
7929 Entertainers and entertainment groups
7933 Bowling centers
7941 Sports clubs, managers, and promoters
7948 Racing, including track operation
7991 Physical fitness facilities
7992 Public golf courses
7993 Coin-operated amusement devices
7996 Amusement parks
7997 Membership sports and recreation clubs
7999 Amusement and recreation, nec

Health Services
8011 Offices and clinics of medical doctors
8021 Offices and clinics of dentists
8031 Offices of osteopathic physicians
8041 Offices and clinics of chiropractors
8042 Offices and clinics of optometrists
8043 Office and clinics of podiatrists
8049 Offices of health practitioners, nec
8051 Skilled nurse care facilities
8052 Intermediate care facilities
8059 Nursing and personal care, nec
8062 General medical and surgical hospitals
8063 Psychiatric hospitals
8069 Specialty hospitals, except psychiatric
8071 Medical laboratories
8072 Dental laboratories
8082 Home health care services
8092 Kidney dialysis centers
8093 Specialty outpatient clinics, nec
8099 Health and allied services, nec

Legal Services
8111 Legal services

Educational Services
8211 Elementary and secondary schools
8221 Colleges and universities
8222 Junior colleges
8231 Libraries
8243 Data processing schools
8244 Business and secretarial schools
8249 Vocational schools, nec
8299 Schools and educational services, nec

Social Services
8322 Individual and family services
8331 Job training and related services
8351 Child day care services
8361 Residential care
8399 Social services, nec

Museums, Botanical, Zoological Gardens

8412 Museums and art galleries

8422 Botanical and zoological gardens

Membership Organizations

8611 Business associations

8621 Professional organizations

8631 Labor organizations

8641 Civic and social associations

8651 Political organizations

8661 Religious organizations

8699 Membership organizations, nec

Engineering and Management Services

8711 Engineering services

8712 Architectural services

8713 Surveying services

8721 Accounting, auditing, and bookkeeping

8731 Commercial physical research

8732 Commercial nonphysical research

8733 Noncommercial research organizations

8734 Testing laboratories

8741 Management services

8742 Management consulting services

8743 Public relations services

8744 Facilities support services

8748 Business consulting, nec

Private Households

8811 Private households

Services, nec

8999 Services, nec

Executive, Legislative, and General

9111 Executive offices

9121 Legislative bodies

9131 Executive and legislative combined

9199 General government, nec

Justice, Public Order, and Safety

9211 Courts

9221 Police protection

9222 Legal counsel and prosecution

9223 Correctional institutions

9224 Fire protection

9229 Public order and safety, nec

Finance, Taxation, and Monetary Policy

9311 Finance, taxation, and monetary policy

Administration of Human Resources

9411 Administration of educational programs

9431 Administration of public health programs

9441 Administration of social and manpower programs

9451 Administration of veterans' affairs

Environmental Quality, and Housing

9511 Air, water, and solid waste management

9512 Land, mineral, wildlife conservation

9531 Housing programs

9532 Urban and community development

Administration of Economic Programs

9611 Administration of general economic programs

9621 Regulation, admin. of transportation

9631 Regulation, administration of utilities

9641 Regulation of agricultural marketing

9651 Regulation of misc. commercial sectors

9661 Space research and technology

National Security and International Affairs

9711 National security

9721 International affairs

Nonclassifiable Establishments

9999 Nonclassifiable establishment

Appendix D California Waste Codes

California Nonrestricted Wastes

Inorganics

121. Alkaline solution (pH> or = 12.5) with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, or zinc)
122. Alkaline solution without metals (pH > or = 12.5)
123. Unspecified alkaline solution
131. Aqueous solution (2 < pH < 12.5) containing reactive anions (azide, bromate, chlorate, cyanide, fluoride, hypochlorite, nitrite, perchlorate, and sulfide anions)
132. Aqueous solution with metals (restricted levels and see waste code 121 for a list of metals)
133. Aqueous solution with total organic residues 10 percent or more
134. Aqueous solution with total organic residues less than 10 percent
135. Unspecified aqueous solution
141. Off-specification, aged, or surplus inorganics
151. Asbestos-containing waste
161. Fluid-cracking Catalyst (FCC) waste
162. Other spent catalyst
171. Metal sludge (see 121)
172. Metal dust (see 121) and machining waste
181. Other inorganic solid waste

Organics

211. Halogenated solvents (chloroform, methyl chloride, perchloroethylene, etc.)
212. Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
213. Hydrocarbon solvents (benzene, hexane, Stoddard, etc.)
214. Unspecified solvent mixture
221. Waste oil and mixed oil
222. Oil/water separation sludge
223. Unspecified oil-containing waste
231. Pesticide rinse water
232. Pesticides and other waste associated with pesticide production
241. Tank bottom waste
251. Still bottoms with halogenated organics
252. Other still bottom waste
261. Polychlorinated biphenyls and material containing PCBs
271. Organic monomer waste (includes unreacted resins)
272. Polymeric resin waste
281. Adhesives
291. Latex waste
311. Pharmaceutical waste
321. Sewage sludge
322. Biological waste other than sewage sludge
331. Off-specification, aged, or surplus organics
341. Organic liquids (nonsolvents with halogens)
342. Organic liquids with metals (see 121)
343. Unspecified organic liquid mixture
351. Organic solids with halogens
352. Other organic solids

Solids

411. Alum and gypsum sludge
421. Lime sludge
431. Phosphate sludge
441. Sulfur sludge
451. Degreasing sludge

461. Paint sludge
471. Paper sludge/pulp
481. Tetraethyl lead sludge
491. Unspecified sludge waste

Miscellaneous

511. Empty pesticide containers 30 gallons or more
512. Other empty containers 30 gallons or more
513. Empty containers less than 30 gallons
521. Drilling mud
531. Chemical toilet waste
541. Photochemicals/photoprocessing waste
551. Laboratory waste chemicals
561. Detergent and soap
571. Fly ash, bottom ash, and retort ash
581. Gas scrubber waste
591. Baghouse waste
611. Contaminated soil from site clean-ups
612. Household wastes
613. Auto-shredder waste

California Restricted Wastes

711. Liquids with cyanides > or = 1000 Mg/L
721. Liquids with arsenic > or = 500 Mg/L
722. Liquids with cadmium > or = 100 Mg/L
723. Liquids with chromium(VI) > or = 500 Mg/L
724. Liquids with lead > or = 500 Mg/L
725. Liquids with mercury > or = 20 Mg/L
726. Liquids with nickel > or = 134 Mg/L
727. Liquids with selenium > or = 100 Mg/L
728. Liquids with thallium > or = 130 Mg/L
731. Liquids with polychlorinated biphenyls > or = 50 Mg/L
741. Liquids with halogenated organic compounds > or = 1000 Mg/L
751. Solids or sludges with halogenated organic compounds > or = 1000 mg/Kg
791. Liquids with pH < or = 2
792. Liquids with pH < or = 2 with metals
801. Waste potentially containing dioxins

Source: California Code of Regulations, Title 22, Division 4.5, Chapter 11, Appendix XII. For most recent revisions, refer to http://ccr.oal.ca.gov/.

Appendix E Publications List

The Office of Pollution Prevention and Technology Development (OPPTD) within the Department of Toxic Substances Control (DTSC) provides this Publications List. The Pollution Prevention Program supplies information on how to implement alternatives to the generation of hazardous pollutants (pollution prevention). The Technology Certification Program evaluates and certifies the performance of environmental technologies. All reports and videos are available at no cost. Please contact OPPTD prior to requesting multiple copies of documents and videos to ensure there is adequate stock on hand. Some documents are available electronically at **http:/www.dtsc.ca.gov/PollutionPrevention/index.html**. Reference copies are located at select California Repository Libraries. Thank you for your interest in improving our environment. We hope this information will be useful.

SB 14 HAZARDOUS WASTE SOURCE REDUCTION & MANAGEMENT REVIEW ACT OF 1989

The preferred approach to waste minimization is source reduction. Source reduction is any activity that prevents or reduces the generation of hazardous waste. Source reduction does not include reducing the volume or toxicity after the hazardous waste is generated.

Doc. No. Title

001 **Guidance Manual for Complying with the Hazardous Waste Source Reduction & Management Review Act of 1989 (2002, 116 pp.)**
SB 14 requires generators to examine current hazardous waste generating processes for hazardous waste minimization opportunities and create a plan to implement workable alternatives. Generators of hazardous waste in excess of amounts specified in SB 14 must prepare a Source Reduction Evaluation Review and Plan, a Hazardous Waste Management Performance Report, and a Summary Progress Report according to a fixed time schedule. Errata sheet brings printed document current with website document.
—website: http://www.dtsc.ca.gov/PollutionPrevention/index.html

003 **Summary Progress Report for Complying with the Hazardous Waste Source Reduction and Management Review Act of 1989 (2002, 7 pp.)**
SB 14 generators, including small businesses, are required to submit the Summary Progress Report to DTSC by September 1, 2003. This document contains three forms and detailed instructions on how to prepare the Summary Progress Report. Errata sheet brings printed document current with website document.
—website: http://www.dtsc.ca.gov/PollutionPrevention/index.html

004 **Compliance Checklist for Complying with the Hazardous Waste Source Reduction and Management Review Act of 1989 (2002, 22 pp.)**
The revised Compliance Checklist serves as a substitute format for the Source Reduction Evaluation Review and Plan. It also contains the Summary Progress Report. The Compliance Checklist can be used by small businesses only. Errata sheet brings printed document current with website document.
—website: http://www.dtsc.ca.gov/PollutionPrevention/index.html

006 **Pollution Prevention Planning - A Citizen's Guide to Hazardous Waste Source Reduction (1997, 1 pp.)**
The Citizen's Guide explains the purposes and requirements of SB 14 to the public. The guide explains the term "source reduction" and discusses what information SB 14 regulated businesses must provide in the Source Reduction Plan and Management Performance Report documents. The guide also discusses the provision in the California Code of Regulations, Section 67100.3(b), which requires businesses to make their SB 14 documents available locally for public review.

WASTE MINIMIZATION FACT SHEETS

A summary of waste minimization methods for specific industries.

Doc. No.	Title
200	**Pollution Prevention Can Work For You (1997, 6 pp.)** A summary of general hazardous waste minimization definitions and techniques for businesses.
201	**Aerospace Industry (1992, 4 pp.)**
202	**Automotive Paint Shops (1992, 4 pp.)**
203	**Automotive Repair Shops (1992, 4 pp.)**
204	**Building Construction (1993, 4 pp.)**
205	**Commercial Printing Industry (1992, 4 pp.)**
206	**Metal Finishers (1992, 4 pp.)**
207	**Paint Formulators (1992, 4 pp.)**
208	**Pesticide Formulating Industry (1992, 4 pp.)**
209	**Printed Circuit Board Manufacturers (1992, 4 pp.)**
210	**Decorative Plating with Trivalent Chrome (1992, 6 pp.)**
211	**Research and Educational Institutions (1993, 4 pp.)**
212	**Ceramic Products (1993, 4 pp.)**
213	**Drug Manufacturing and Processing (1994, 6 pp.)**
216	**Paint Manufacturers Can Save Money on Environmental Compliance Costs (1996, 4 pp.)**
217	**How To Select and Use Safe Janitorial Chemicals (1999, 19 pp.)** This compilation of fact sheets provides important information on safer janitorial chemicals and products for commercial buildings' toilet care, carpet care, restroom cleaning etc. It highlights important safety tips, pollution prevention techniques, monitoring, and workers' training. All could result in reducing pollution while enhancing workers' safety.

WASTE AUDIT STUDIES

Full-scale assessments of specific industries that show where waste minimization methods can be most effective.

Doc. No.	Title
308	**Gold, Silver, Platinum, and Other Precious Metals Product and Reclamation (1990, 198 pp.)**
310	**Mechanical Equipment Repair Shops (1990, 87 pp.)**
312	**Non-Agricultural Pesticide Application Industry (1991, 116 pp.)**
315	**Photoprocessing Industry (1995, 267 pp.)**
318	**Stone, Clay, Glass, and Concrete Products Industries (1991, 120 pp.)**
319	**Thermal Metal Working Industry (1990, 195 pp.)**

HAZARDOUS WASTE MINIMIZATION CHECKLIST AND ASSESSMENT MANUALS

Manuals developed to aid manufacturers in evaluating their shops for waste minimization opportunities.

Doc. No.	Title
400	**Automotive Repair Shops (1988, 47 pp.)**
402	**Metal Finishing Industry (1993, 143 pp.)**
403	**Paint Formulators (1991, 40 pp.)**
404	**Pesticide Formulators (1990, 20 pp.)**
405	**Electronics Industry (1996, 76 pp.)**
406	**Auto Paint Shops (1992, 12 pp.)**
407	**Building Construction (1992, 28 pp.)**
408	**Ceramic Products (1993, 27 pp.)**
409	**Marine Ship and Pleasure Vessel Boat Yards (1993, 30 pp.)**
410	**Jewelry Manufacturers (1994, 43 pp.)**
411	**Commercial Printing Industry (1994, 54 pp.)**
412	**Photoprocessing Industry (1995, 66 pp.)**
413	**Pollution Prevention Guide for Hospitals (1998, 148 pp.)**

BIENNIAL REPORTS TO THE CALIFORNIA STATE LEGISLATURE

Doc. No.	Title
1202	**Alternative Technologies for the Minimization of Hazardous Waste (Fifth Biennial) (1990,140 pp.)** Reports on activities relating to innovative hazardous waste minimization, recycling, and treatment technologies.
501	**Pollution Prevention in California - An Overview of California's Pollution Prevention Programs (Sixth Biennial) (1992, 110 pp.)** An overview of California's multimedia pollution prevention programs at the State and local government levels. Industry pollution prevention case studies show how businesses respond to the pressure to reduce wastes.

WASTE MINIMIZATION INFORMATION

Doc. No. Title

505 **Hazardous Waste Minimization Bibliography (1991, 76 pp.)**
References are organized in four sections:
(1) general hazardous waste minimization topics,
(2) industry-specific, (3) material specific, and
(4) available abstracts from the previous three sections.
All references are listed in alphabetical order by title.

506 **Incinerable Hazardous Waste Minimization Project Fact Sheet (1992, 8 pp.)**
Provides an interim update for the project using 1990 data taken from the manifest system.

508 **Incinerable Waste Minimization Workshops Proceedings (1991, 251 pp.)**
A compilation of the papers presented at two workshops held in January 1991. Areas covered include: regulations, source reduction, recycling strategies and opportunities, alternative technologies for petroleum refineries, electronics industry, aerospace industry, and chemical and paint manufacturers.

510 **No-Waste Lab Manual for Educational Institutions (1991, 115 pp.)**
A laboratory manual for introductory chemistry courses incorporating procedures that produce little or no toxic waste. This is accomplished by the use of consecutive chemical reactions so that the production of one reaction is used as the starting material for the next.

517 **Waste Minimization for Hazardous Materials Inspectors:**
Introductory Text with Self-Testing Exercises (Module I), Assessment Procedures (Module II, Unit 1), and Metal Finishing Industry (Module III) (1991, 182 pp.)
Module I is written for use by both experienced and novice hazardous materials inspectors who wish to learn more about hazardous waste minimization. Module II provides basic information in conducting a self-assessment, and Module III focuses on some of the viable waste minimization alternatives for certain metal finishing operations. (Videotape also available-See Order #1500).

518 **Waste Minimization Assessment Procedures: For the Generator (Module II, Unit 2) (1991, 81 pp.)**
Provides the hazardous waste generator with procedures for conducting a self-assessment and introduces the provisions of SB 14.

526 **Pollution Prevention 1993 - A Year in Review (1994, 96 pp.)**
Documents the significant accomplishments and activities that have been achieved by DTSC in the area of pollution prevention during calendar year 1993. The report highlights several very important projects which are being looked upon as national models.

540 **Pollution Prevention Accomplishments (1999, 41 pp.)**
Reports the significant accomplishments and activities of OPPTD between January 1996 and December 1998.

541 ***NEW*** **Pollution Prevention Report and 2-Year Workplan (2000, 173 pp.)**
Summarizes DTSC's activities per SB 1916 of 1998. Includes information about the trends in hazardous waste generation, the status of hazardous waste generation in 1998, the 2-year pollution prevention workplan developed with the guidance of DTSC's Pollution Prevention Advisory Committee, information about economic and financial incentives for pollution prevention, a description of DTSC research projects, and a list of Advisory Committee recommendations and issues for further discussion. The appendices include agendas and minutes from Advisory Committee meetings.

LOCAL GOVERNMENT

Doc. No. Title

507 **Hazardous Waste Reduction: A Step-by-Step Guidebook for California Cities (1992, 180 pp.)**
Outlines the essential elements of a successful city run, multimedia waste minimization program. It is designed to walk the user through steps the city can take to implement and reduce hazardous materials use and hazardous waste typically generated by city operations.

527 **Marketing Pollution Prevention 101: A Simple Guide for Local Governments (1993, 43 pp.)**
Provides ideas to assist local agencies in getting industry more actively involved in pollution prevention programs. The guide has been developed by using information and case studies from various local agencies and consulting basic marketing techniques.

WASTE MINIMIZATION ASSESSMENTS OF SPECIFIC FACILITIES

Doc. No. Title

504 **Pollution Prevention Technologies at General Dynamics - Pomona, California (1991, 9 pp.)**
A variety of waste minimization technologies were technically and economically evaluated at an aerospace facility. Technologies range from computerized printed circuit board plating to solvent distillation.

519 **Pollution Prevention Assessment of the Office of the State Printer (1991, 42 pp.)**
Provides the findings of a pollution prevention assessment of the State Printing Plant and can serve as a waste minimization guideline for printers in California.

521 **Waste Minimization : Small Quantity Generators at Los Angeles International Airport (1990, 49 pp.)**
Summarizes the results of a study that involved visits to five representative small quantity generators and targeted waste minimization of used oil and jet fuel, cleaning operations and paint stripping.

528 **Assessment of the Aerospace Industry Facility Planning Efforts (1993, 100 pp.)**
Presents the results of the DTSC's assessment of the aerospace industry's source reduction review and planning effort as mandated under SB 14. The report discusses the review of about 90 facility summaries and 22 plans and reports.

529 **Assessment of the Petroleum Industry Facility Planning Efforts (1993, 70 pp.)**
Presents the results of DTSC's assessment of the petroleum industry's source reduction review and planning effort mandated by SB 14. The report discusses the source reduction review of approximately 18 petroleum industry facilities.

530 **Assessment of the Semiconductor Industry Source Reduction Planning Efforts (1994, 85 pp.)**
Presents the results of the DTSC's assessment of the semiconductor industry's source reduction review and planning effort as mandated under SB 14.

531 **Assessment of 1,1,1-Trichloroethane Users Source Reduction Efforts (1995, 125 pp.)**
More than forty different companies representing over thirty different industries submitted source reduction documents with 1,1,1-trichloroethane substitution information. Thirty-five abstracts explain how these companies are making the transition to other cleaners. Document call-in and review conducted under authority of SB 14.

532 **Assessment of Selected Paints and Allied Product Manufacturers Source Reduction Facility Planning Efforts (1995, 37 pp.)**
Summarizes the results of DTSC's assessment of the paint manufacturing industry's source reduction and facility planning efforts. DTSC requested and reviewed Plans and Reports from 26 facilities within this SIC Code (2851).

533 **Assessment of the Polymers and Resins Industry Hazardous Waste Source Reduction Planning Efforts (1996, 75 pp.)**
Presents the results of DTSC's assessment of the polymers and resins industry's source reduction review and planning effort as mandated under SB 14. DTSC requested and reviewed Plans and Reports from 31 facilities.

534 **Assessment of the Metal Finishing and Plating Industry Source Reduction Planning Efforts (1996, 62 pp.)**
Summarizes the results of the DTSC's assessment of the metal finishing and plating industry's source reduction efforts as mandated by SB 14. Plans and reports from 75 facilities were reviewed.

536 **Assessment of the Petroleum Industry Hazardous Waste Source Reduction Planning Efforts (1997, 91 pp.)**
This second assessment highlights several successful source reduction measures leading to significant reductions of hazardous waste generations, offers an interesting comparison of 1990 vs. 1994 source reduction progress, and discusses future plans.

537 **Assessment of Chemicals and Allied Products Industry Source Reduction Planning Efforts (1998, 106 pp.)**
Presents findings from DTSC's source reduction planning assessment of 40 facilities classified under seven SIC codes within the Chemicals and Allied Products Industry. This report contains descriptions of each of the 40 companies, discusses compliance issues, and lists source reduction measures for the industry.

538 **Assessment of California's Largest Hazardous Waste Generator's Source Reduction Effort (1998, 65 pp.)**
Presents DTSC's' assessment of some of the largest hazardous waste generators source reduction planning efforts. SB 14 documents from 28 facilities from a wide range of industries were requested and reviewed for this report. Waste generation comparisons were made for the period 1990 to 1994 and beyond. Most facilities reported a decrease in hazardous waste generation.

539 **Source Reduction Technologies in California Printed Circuit Board Manufacture (1999, 30 pp.)**
Innovative technologies are discussed in this report. Most are commercially available, yet innovative in that they are new or improved technologies that offer economic and/or environmental advantages over conventional technologies.

542 ***NEW*** **Summary of Information from Senate Bill 14 Call-In's, Selected Printers (2001, 100 pp.)**
Contains data collected from the 1990, 1994, and 1998 Senate Bill 14 Plans and Reports. Includes quantities of major waste streams, overview of printing processes, and table and description of tested source reduction measures. Over 70 different facility case studies are outlined with cost data and contact information.

WASTE STREAM SPECIFIC INFORMATION

Doc. No. Title

607 **Aqueous Alternatives to Solvent Cleaning (1994, 6 pp.)**
A summary of general information on many of the aqueous alternatives available to replace solvent cleaners.

608 **Alternatives to Chlorinated Solvents in Cleaning Applications (1994, 132 pp.)**
Discusses the chemical and process alternatives to chlorinated solvents in vapor degreasing, cold cleaning, printed circuit board defluxing and handwipe operations. The report also summarizes the air, water, and waste regulations that apply to alternatives. Detailed case studies demonstrate the issues that firms must consider when they are selecting an alternative.

609 **Simplified Guide for Evaluating Alternatives to Chlorinated Solvents in Cleaning Applications (1995, 22 pp.)**
Presents a simplified approach for evaluating alternatives to chlorinated solvents in various cleaning applications. This approach is based on a detailed cross-media analysis of the alternatives in vapor degreasing, cold cleaning, wipe cleaning and printed circuit board defluxing as described in Document Number 608. Written by Dr. Katy Wolf of the Institute of Research and Technical Assistance (IRTA).

610 **Compliance Assistance PCB Self-Inspection Checklist for PCB Waste Generators (1999, 8 pp.)**
A checklist designed to approximate one that an inspector might use while examining a facility for PCB compliance. Also provides regulatory references to assist in locating further information or regulations concerning specific issues or sections of the checklist. Both federal and California state PCB regulations are discussed.

611 **Parts Cleaning Alternatives in Machine Shops (1995, 16 pp.)**
A guide to assist shop operators in the evaluation and adoption of alternatives to the use of 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113) and 1,1,1-trichloroethane (TCA) for parts cleaning. These two chlorinated solvents have been banned as of January 1, 1996. The report is also a primer for those interested in pollution prevention strategies for machine shops.

612 **Waste Management for Painters (1997, 3 pp.)**
Explains practical waste management methods to eliminate or reduce waste generation, and safely recycle or dispose of leftover paint waste, wash water, containers and used equipment.

613 **Parts Cleaning in Auto Repair Facilities: The Conversion to Water Executive Summary (1997, 4 pp.)**
Provides a brief overview of the results of a test and demonstration project in Los Angeles, California for water-based cleaning systems in auto repair facilities. Four types of equipment were investigated including a sink-on-a-drum remote reservoir configuration, an immersion system, an enzyme unit and a spray cabinet. Four water-based cleaning formulations were tested: three were alkaline cleaners and one was an enzyme cleaner.

614 **Parts Cleaning in Auto Repair Facilities: The Conversion to Water (1997, 80 pp.)**
This report presents the results of the test and demonstration project summarized in Document Number 613. Information contained includes testing for technical feasibility, analysis of results, cost analysis and project findings and implications. Report also contains Material Safety Data Sheets for aqueous cleaning formulations used in the project.

615 **Appendices to Parts Cleaning in Auto Repair Facilities: The Conversion to Water (1997, 250 pp.)**
These appendices present the water quality data collected in the test and demonstration project summarized in Document Number 613 and reported in 614. Data printouts include listing of inorganic and organic laboratory results.

616 **Switching to Water-Based Cleaners in Repair and Maintenance Parts Cleaning (1999, 2 pp.)**
This two-page brochure provides specific information on water-based cleaning systems, formulations, costs, regulatory concerns and frequently asked questions and answers related to repair and maintenance parts cleaning in auto repair shops and other maintenance parts cleaning.

617 **Water-Based Parts Washer Systems: A Guidance Program for Users (1999, 3 pp.)**
This document presents detailed information on water-based cleaning systems and formulations used widely in auto repair facilities as a also replacement for mineral spirits cleaning systems. Document analyzes state and federal hazardous waste regulations that affect the transition from mineral spirits to water-based cleaning.

618 **Water-Based Parts Washer Systems: Case Study Conversions (1999, 29 pp.)**
This reports presents the results of case studies in auto repair and industrial facilities using water-based cleaning systems and formulations. Four generic types of equipment and four water-based cleaning formulations were tested at various concentrations. The case studies contain feasibility and cost information as well as ways to optimize use of equipment and cleaners.

619(a) **Switching to Water-Based Cleaners for Automotive Brake Cleaning, (1999, 2 pp.)**
This two-page brochure provides specific information on water-based cleaning systems, formulations, costs, regulatory concerns and frequently asked questions related to automotive brake cleaning.

619(b) **Cambiando Al Limpiador A Base De Agua Para La Limpieza De Frenos Automotriz (1999, 2 pp.)**
Este folleto provee información especifica de sistemas de limpiar a base de agua, formulaciones, costos, problemas de regulación y preguntas comunmente hechas relativo a limpieza de frenos automotriz.

620 **Brake Cleaning in Automotive Repair Facilities: The Conversion to Water (1999, 113 pp.)**
This document presents detailed information on water-based cleaning systems and formulations used widely for automotive brake cleaning as a replacement for perchloroethylene (PERC). Document analyzes State and federal hazardous waste regulations that affect the transition from PERC to water-based cleaning.

621 **Seven (7) Case Studies: The Conversion to Water-Based Cleaners for Automotive Brake Cleaning in Los Angeles (1999, 7 pp.)**
(English and Spanish) This collection of seven, one-page case studies presents a thumbnail sketch of water-based cleaning systems and formulations used in seven shops in the Los Angeles area. Equipment, cleaner, and disposal costs for aerosol brake versus water-based brake cleaning systems are compared. Side one in English with flip side in Spanish.

622 ***NEW*** **How To Select and Use Safe Janitorial Chemicals (1999, 86 pp.)**
This comprehensive report provides information on opportunities to achieve pollution prevention by changing janitorial products with highly toxic ingredients to ones that are less hazardous. The report highlights a variety of interesting data and detailed discussion on the results derived from experiments conducted at many sites in the state of California.

623 ***NEW*** **Mercury in the Environment (2001, trifold with 6 inserts)**
This colorful brochure gives general information on mercury and proper disposal of the following: Gauges - Manometers, Barometers and Vacuum Gauges; Mercury Switches and Relays; and Mercury Thermometers; Mercury - Containing Thermostats; Fluorescent and High-Intensity Discharge Lamps; and Mercury-Containing Thermostat Probes.

624 ***NEW*** **A Guide to Mercury Assessment and Elimination in Healthcare Facilities CD (2000)**
Includes case studies of mercury assessments of six hospitals. Costs and availability of mercury free equipment alternatives discussed. Excel Spreadsheet with the multiplier for applicable hospital mercury containing devices allows the user to calculate the amount of mercury removed from the facili

625 ***NEW***
Pollution Prevention Tool Kit - Best Environmental Practices for Fleet Maintenance (2001, 32 pp.)
The Tool Kit contains a series of fact sheets demonstrating pollution prevention methods in the vehicle fleet maintenance industry. The fact sheets focus on typical activities in the fleet maintenance shop, and introduce alternative methods that will reduce the amount of hazardous wastes generated, reduce operational costs, and increase fleet operators' ability to comply with environmental regulations. These alternative methods include aqueous cleaning technologies for vehicle parts and brakes, antifreeze recycling, use of refillable spray bottles, oil life extension, use of reusable oil filters, dry floor cleaning methods, and oil-water separator maintenance. The facts sheets include cost comparison spreadsheets, diagrams, fleet operations case studies, and vendor resources.

626 **NEW**
Pollution Prevention Tool Kit - Best Environmental Practices for Auto Repair (2001, 28 pp.)
The Tool Kit contains a series of fact sheets demonstrating pollution prevention methods in the vehicle service and repair industry. The fact sheets focus on typical activities in the vehicle repair shop, and introduce alternative methods that will reduce the amount of hazardous wastes generated, reduce operational costs, and increase shop operators' ability to comply with environmental regulations. These alternative methods include aqueous cleaning technologies for vehicle parts and brakes, antifreeze recycling, use of refillable spray bottles, dry floor cleaning methods, and oil-water separator maintenance. The Tool Kit includes cost comparison spreadsheets, diagrams, case studies of actual shops, and vendor resources.

ENVIRONMENTAL TECHNOLOGY CERTIFICATION / VERIFICATION PROGRAM

ET ✔

Hazardous waste environmental technologies are evaluated for certification by the State of California and/or verification by a joint Cal/EPA-U.S. EPA Pilot Project.

Doc. No. Title

700 **California Hazardous Waste Environmental Technology Certification Program-Program Summary, August 1998 (1998, 3 pp.)**

701 **Technology Transfer Advisories (1999, 33 pp.)**
A brief 1-2 page description of each of the certified technologies.

703 **Hazardous Waste Environmental Technology Certification Program - Process Description (1997, 14 pp.)**
This document describes the process used by DTSC to evaluate the technologies for the Hazardous Waste Environmental Technology Certification Program. The process description includes a flow chart and narrative which gives a brief description of each of the process steps.

704 **California Hazardous Waste Environmental Technology Certification Program - Part I Application Instructions (1998, 12 pp.)**
The Part I Application Instructions provide you with the information needed to request evaluation of your technology through the Hazardous Waste Environmental Technology Certification Program. Applicants meeting eligibility and program screening criteria will be asked to submit a Part II Application which provides detailed supporting information and data relative to specific performance claims identified.

Documents 710, 711 and 712 can be found on the Internet at http://www.dtsc.ca.gov/PollutionPrevention/index.html

710 **General Acceptance Criteria and Standards Guidance for the Verification of Environmental Technologies (1998, 10 pp.)**
This document outlines the data quality acceptance and quality control criteria to be used in the verification of environmental technologies.

711 **Acceptance Criteria, Performance and Process Guidance for the Certification of Bioremediation Technologies (1998, 38 pp.)**
This document delineates information needs, minimum criteria to be met and a process to be followed for the performance certification of biotechnologies.

712 **Performance-based Certification of Hazardous Waste Measurement and Monitoring Technologies (1998, 49 pp.)**
Protocol describes documents and performance data required for the evaluation of measurement and monitoring technologies. Such technologies are used in site characterization, environmental field testing, sampling, sample preparation methods, and analysis by instrumental, chemical and biological methods.

Documents 713, 730, 750 and 751 can be found on the Internet at http://www.dtsc.ca.gov/ScienceTechnology/etvpilot.html

713 **Technology Evaluation Work Plan - Rechargeable Alkaline Battery System (1998, draft, 17 pp.)**
Technology Evaluation work plan for rechargeable alkaline battery system certification. (Originally drafted for the Rayovac Renewal® Rechargeable Battery System evaluation.)

730 **Technology Evaluation Work Plan - Smart Sonic Ultrasonic Aqueous Cleaning System (1998, 26 pp.)**
Workplan for evaluation for the SMART SONIC ultrasonic aqueous cleaning system. It describes the protocol for evaluation, including testing by the South Coast Air Quality Management District, user interviews and on-site visits. (Verification Report available separately as #750).

750 **Technology Verification Report - Smart Sonic Ultrasonic Aqueous Cleaning System (1999, 43 pp.)**
Final Report for Verification (and California Certification) of the SMART SONIC ultrasonic aqueous cleaning system. It describes how the SMART SONIC system cleans lead solder from printed circuit board stencils.

751 **Technology Verification Report-Rayovac Renewal® Rechargeable Alkaline Battery System (1999, 47 pp.)**
Final Report describes the Rayovac Renewal® System which was verified as a pollution prevention technology that replaces up to ten nonrechargeable alkaline batteries of the same size.

ALTERNATIVE TECHNOLOGY

New and innovative alternative technologies.

Doc. No. Title

1211 **Reclamation of Waste Foundry Sands: Fresno Valves and Castings, Inc., Waste Sand Reclamation Project (Technology Brief) (1995, 2 pp.)**
Describes a project involving the reconditioning and reuse of most of the waste sand.

1212 **Alternative Technology Demonstration Project Report - Use of Kerr McGee Chemical Corporation Boiler Fly Ash as a Feedstock in the Manufacturing of Southwestern Portland Cement (1992, 9 pp.)**
This project determined that the use of Kerr McGee fly ash as an ingredient in the manufacture of Portland Cement resulted in a cement product that effectively stabilized hazardous levels of nickel and vanadium present in the ash ingredient.

1213 **Alternative Technology Demonstration Project Report - Separation of Phosphor Powder, Glass and Endcaps to Enable Recycling of Spent Fluorescent Lamp Tubes (1993, 12 pp.)**
A full-scale demonstration of this effective system was conducted with Mercury Technologies, Incorporated.

1214 **Water Based Ink Wastes: Biodegradation Technology (Technology Brief) (1995, 2 pp.)**
Describes a biologically based electromechanical system that uses horse manure as a source of microbes to biodegrade water-based ink wastes.

1215 **The Construction and Assessment of a Biological System for Biodegradation and Recycling of Pesticide Waste (1993, 57 pp.)**
Experimental results and data of a biologically based, electromechanical system that uses horse manure as a source of microbes to biodegrade pesticide waste.

1216 **Pesticide Rinsates: Biodegradation Technology (Technology Brief) (1995, 2 pp.)**
Describes a biologically based, electromechanical system that uses horse manure as a source of microbes to biodegrade
pesticide rinsates.

1217 **California Environmental Technologies and Services Directory Diskette (1994)**
An alphabetical listing of over 1,100 California environmental companies and a series of technology matrices giving detailed information about the company's involvement in the environmental industry. The Directory is only available on disk.

VIDEOS

Doc. No. **Title**

1500 **Waste Minimization for Inspectors (Videotape of a slide show) (1991, 44 minutes)**
A three-section videotape of a slide show that provides a basic introduction to waste minimization and assessment procedures and an excellent overview of waste minimization processes involved in metal cleaning, metal finishing and printed circuit board manufacturing.

1501 **Why Waste?: Waste Minimization for Today's Businesses (1990, 28 minutes)**
Defines waste minimization and illustrates waste minimization successes in several different types of businesses. Source reduction and recycling case studies illustrate the environmental and economic benefits of implementing a waste minimization program. Is useful for training sessions and seminars focusing on innovative ways for reducing hazardous waste.

1503 NEW **Profit Through Prevention - Best Environmental Practices for Fleet Maintenance (1999, 35 minutes)**
This video is a companion to the Tool Kit, and shows how fleet operators have achieved cost savings and improved environmental compliance by implementing Best Environmental Practices. The video demonstrates step-by-step how to implement these practices and includes several fleet operators and their success stories.

1504 NEW **Profit Through Prevention - Best Environmental Practices for Auto Repair (1999, 30 minutes)**
This video is a companion to the Tool Kit, and shows how automotive shop operators have achieved cost savings and improved environmental compliance by implementing Best Environmental Practices. The video demonstrates step-by-step how to implement these practices and includes several automotive shop operators and their success stories.

POLLUTION PREVENTION CASE STUDIES

Doc. No. **Title**

1600 **Zero Water Discharge in the Metal Plating Industry Using an Improved Ion Exchange Process (1996, 6 pp.)**

1601 **Monsanto: The Synergy Between Total Quality and Pollution Prevention (1996, 8 pp.)**
Source reduction measures implemented at a catalyst manufacturing facility.

FOR FURTHER INFORMATION VISIT THESE WEBSITES:

Other documents and executive summaries are available online through the California Environmental Protection Agency (Cal/EPA) Home Page. Use the following Uniform Resource Locators (URLs) to find the web page for Cal/EPA, DTSC and OPPTD. The Cal/EPA web page has a hypertext link to DTSC. The DTSC web page has a hypertext link to OPPTD. The following are the web page addresses:

Cal/EPA: http://www.calepa.ca.gov/
DTSC: http://www.dtsc.ca.gov/

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__ University
__ Federal Government
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Appendix F Local Unified Program Agencies (CUPAs, Designated Agencies, and Participating Agencies)

Alameda County

Alameda County Environmental Health
Mr. Ariu Levi, Division Chief
1131 Harbor Bay Parkway, #240
Alameda, CA 94502-6577
Phone: (510) 567-6862
Fax: (510) 337-9335
Email: alevi@co.alameda.ca.us

Berkeley City Toxics Management Division
Planning and Development Department
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Email: emschs@psin.com

Siskiyou County

Siskiyou County Environmental Health
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806 South Main Street
Yreka, CA 96097
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Solano County

Solano County Environmental Health
Mr. Dennis Kalson, Program Manager
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Fairfield, CA 94533
Phone: (707) 421-6765
Fax: (707) 421-4805
Email: dkalson@solanocounty.com

Sonoma County

Healdsburg/ Sebastopol Cities Fire Department
Mr. Randy Collins
601 Healdsburg Avenue
Healdsburg, CA 95448
Phone: (707) 431-3360
Fax: (707) 431-3146
Email: rcollins@ci.healdsburg.ca.us

* Designated County Agency
** Participating Agency

Petaluma City Fire Department
Mr. Michael Ginn, Fire Marshal
PO Box 61
Petaluma, CA 94953
Phone: (707) 778-4389
Fax: (707) 778-4498
Email: mginn@ci.petaluma.ca.us

Santa Rosa City Fire Dept
Mr. Jim Frank, Hazardous Materials Program Manager
955 Sonoma Avenue
Santa Rosa, CA 95404
Phone: (707) 543-3526
Fax: (707) 543-3520
Email: jfrank@ci.santa-rosa.ca.us

Sonoma County Emergency Services
Ms. Sophia Galifaro, Hazardous Materials Program Coordinator
2300 County Center Drive, #221-A
Santa Rosa, CA 95403
Phone: (707) 565-1152
Fax: (707) 565-1172
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Stanislaus County

Stanislaus County Environmental Resources
Mr. Jim Simpson, Progam Manager
3800 Cornucopia Way, Suite C
Modesto, CA 95358
Phone: (209) 525-6700
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Sutter County

Sutter County Community Services Dept*
Mr. Rich Hall, Director
1160 Civic Center Blvd., Suite E
Yuba City, CA 95993
Phone: (530) 822-7400
Fax: (530) 822-7109
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Tehama County

Tehama County Environmental Health*
Mr. Lee Mercer, Director
Tehama County Courthouse
633 Washington Street, Room 36
Red Bluff, CA 96080
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Trinity County

Trinity County Health Department*
Ms. Christine Tuckey, Environmental Health Specialist
PO Box 1470
Weaverville, CA 96093
Phone: (530) 623-1459
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Tulare County

Tulare County Environmental Health
Mr. Joel Martens, CUPA Program Supervisor
5957 Mooney
Visalia, CA 93277
Phone: (559) 733-6441
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Tuolumne County

Tuolumne County Environmental Health
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Sonora, CA 95370
Phone: (209) 533-5990
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* Designated County Agency
** Participating Agency

Ventura County

Oxnard City Fire Department
Mr. Joe Zarnoch, Environmental Specialist
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Oxnard, CA 93030
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Santa Paula Fire Department**
Mr. Richard Araiza, Assistant Fire Chief
P.O. Box 569
Santa Paula, CA 93061-0569
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Ventura County Environmental Health
Mr. Steve Mattern
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Ventura, CA 93009-1730
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Yolo County

Yolo County Environmental Health
Mr. Bruce Sarazin, Supervising Hazmat Specialist
10 Cottonwood Street
Woodland, CA 95695
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Fax: (530) 666-8664
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Yuba County

Yuba County Office Of Emergency Services*
Mr. Kelly Purdom, Director
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Fax: (530) 741-6549
Email: kpurdom@co.yuba.ca.us

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Office of Pollution Prevention and Technology Development
Department of Toxic Substances Control
PO Box 806
Sacramento, CA 95812-0806

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Source: Cal-CUPA Forum. For most recent information, refer to http://www.calcupa.net/localagencylisting.pdf

* Designated County Agency
** Participating Agency

Appendix G Completeness Lists for the Plan and Report

Source Reduction Evaluation Review and Plan List

The following list will be helpful in determining completeness of a Hazardous Waste Source Reduction Evaluation Review and Plan. The Department of Toxic Substances Control uses a similarapproach to determine whether or not a Review and Plan has met the minimum requirements necessary to comply with the Hazardous Waste Source Reduction and Management Review Act of 1989.

The Office of Pollution Prevention and Technology Development suggests that you verify your Plan's completeness by checking each item and including the page number where the information can be found in your Plan. It may be helpful to include the completed list in front of your Plan.

		This requirement is in the Plan on page:
1. Is the generator's name, address, telephone number and EPA Identification Number in the Plan? (CCR Section 67100.5(a))	☐ Yes ☐ No	_____
2. Is the address the same location where waste is generated?	☐ Yes ☐ No	_____
If no, is there a given address where waste is generated?	☐ Yes ☐ No	_____
3. Is the four-digit SIC code(s) for the site in the Plan? (CCR Section 67100.5(b))	☐ Yes ☐ No	_____
4. Is the Plan addressing a multi-site operation?	☐ Yes ☐ No	_____
If yes, are all the sites' addresses listed in the Plan?	☐ Yes ☐ No	_____
(If no, this Plan is incomplete.)		
5 Is there a description of the business or activity conducted at the site in the Plan? (CCR Section 67100.5(c))	☐ Yes ☐ No	_____
6. Is the length of time the company has been in operations at the present site provided in the Plan? (CCR Section 67100.5(d))	☐ Yes ☐ No	_____
7. Are the major manufactured products and services provided by the business described in the Plan? (CCR Section 67100.5(e))	☐ Yes ☐ No	_____
8. Are the number of employees working at the site given in the Plan? (CCR Section 67100.5(f))	☐ Yes ☐ No	_____
9. Is there a general description of the operations of the site in the Plan with corresponding block diagrams focusing on quantity and type of hazardous wastes, raw materials, and final products produced at the site? (CCR Section 67100.5(g))	☐ Yes ☐ No	_____

This requirement is in the Plan on page:

10. Does the Plan identify all routinely-generated hazardous waste streams which result from ongoing processes or operations having a yearly volume, or comparable weight, that exceeds five percent of the total yearly volume, or comparable weight, of hazardous waste at the site? (CCR Section 67100.5(h)) ☐ Yes ☐ No _____

For each hazardous waste stream identified in 10 above,

11. Does the Plan provide an estimate of the weight, in pounds, of waste generated at the site? (CCR Section 67100.5(i)(1)) ☐ Yes ☐ No _____

12. Does the Plan provide the applicable California Waste Code(s) for each waste stream? (CCR Section 67100.5(i)(2)) ☐ Yes ☐ No _____

13. Are the waste-generating processes, operations and activities (along with corresponding diagrams) described in the Plan? (CCR Section 67100.5(i)(3)) ☐ Yes ☐ No _____

14. Do the processes, operations and activities described include a listing of all input materials contributing to the generation of waste? (CCR Section 67100.5(i)(3)) ☐ Yes ☐ No _____

15. Is there an evaluation of available source reduction measures? (CCR Section 67100.5(j)) ☐ Yes ☐ No _____

16. Do the evaluations of source reduction measures consider the following approaches: (CCR Section 67100.5(j))

Input changes? ☐ Yes ☐ No ☐ N/A _____

Operational improvements? ☐ Yes ☐ No ☐ N/A _____

Production process changes? ☐ Yes ☐ No ☐ N/A _____

Product reformulation ☐ Yes ☐ No ☐ N/A _____

Administrative steps? ☐ Yes ☐ No ☐ N/A _____

17. Do the evaluations of source reduction measures consider the following factors: (CCR Section 67100.5(k)) ☐ Yes ☐ No ☐ N/A _____

		This requirement is in the Plan on page:
Expected change in the amount of hazardous waste generated?	☐ Yes ☐ No ☐ N/A	_____
Technical feasibility?	☐ Yes ☐ No ☐ N/A	_____
Economic evaluation?	☐ Yes ☐ No ☐ N/A	_____
Effects on product quality?	☐ Yes ☐ No ☐ N/A	_____
Employee health and safety implications?	☐ Yes ☐ No ☐ N/A	_____
Permits, variances, compliance schedules of applicable State, local and federal agencies?	☐ Yes ☐ No ☐ N/A	_____
Releases and discharges?	☐ Yes ☐ No ☐ N/A	_____

18. Does the Plan provide information, such as waste stream constituents and concentrations, pertinent to the evaluation of the source reduction approaches? (CCR Section 67100.5(l)) ☐ Yes ☐ No _____

19. Is there a specification of, and a rationale for, each technically feasible and economically practicable source reduction measure(s) being proposed in the Plan for implementation? (CCR Section 67100.5(m)) ☐ Yes ☐ No _____

If yes, does the specification include at a minimum a narrative description of the factors in 67100.5(k) and address system capacity and efficiency? ☐ Yes ☐ No _____

20. Is there an evaluation and, to the extent practicable, a quantification of the effects of the chosen source reduction measure(s) on emissions and discharges to air, water, or land? (CCR Section 67100.5(n)) ☐ Yes ☐ No _____

21. Is there a list of alternatives considered but not selected for a detailed evaluation as a potentially viable source reduction approach? (CCR Section 67100.5(o)) ☐ Yes ☐ No _____

22. For each alternative rejected, is there a rationale for rejection? (CCR Section 67100.5(o)) ☐ Yes ☐ No _____

23. Is there a timetable for making reasonable and measurable progress towards implementing and completing the selected source reduction measures? (CCR Section 67100.5(p)) ☐ Yes ☐ No _____

		This requirement is in the Plan on page:
24. Is there an implementation schedule for completing the evaluation of potentially viable source reduction measures and includes prioritization of processes and wastes for future research, development and source reduction analysis? (CCR Section 67100.5(p))	☐ Yes ☐ No	_____
25. Does the Plan contain a four-year numerical goal for reducing the generation of hazardous waste streams through the selected source reduction measures? (CCR Section 67100.5(q))	☐ Yes ☐ No	_____
26. Is the Plan properly certified? (CCR Section 67100.13)		
Technical Certification	☐ Yes ☐ No	_____
Financial Certification	☐ Yes ☐ No	_____

Hazardous Waste Management Performance Report List

The following list will be helpful in determining completeness of a Hazardous Waste Management Performance Report. The Department of Toxic Substances Control uses a similar approach to determine whether or not a Performance Report has met the minimum requirements necessary to comply with of the Hazardous Waste Source Reduction and Management Review Act of 1989.

The Office of Pollution Prevention and Technology Development suggests that you verify your Report's completeness by checking each item and including the page number where the information can be found in your Report. It may be helpful to include the completed list in front of your Report.

This requirement is in the Report on page:

1. Is the generator's name and address given in the Report? (CCR Section 67100.8(a)(1)) ☐ Yes ☐ No _____

2. Is the address the same location where the waste is generated? ☐ Yes ☐ No _____
   If no, is there a given address where waste is generated? ☐ Yes ☐ No _____

3. Is the four-digit SIC code(s) for the site given? (CCR Section 67100.8(a)(2)) ☐ Yes ☐ No _____

4. Is the Report addressing a multi-site operation?
   If yes, are all the sites' addresses listed in the Report? ☐ Yes ☐ No _____
   (If no, the Report is incomplete.)

5. Is the baseline year clearly stated in the Report? ☐ Yes ☐ No _____

6. Is the reporting year clearly stated in the Report? ☐ Yes ☐ No _____

7. Is the reporting year the same as the baseline year and so stated in the Report? ☐ Yes ☐ No _____
   (If no years are given, the Report is incomplete.)

8. Does the Report identify all routinely-generated hazardous waste streams which result from ongoing processes or operations having a yearly volume, or comparable weight, that exceeds five percent of the total yearly volume, or comparable weight, of hazardous waste at the site? (CCR Section 67100.8(a)(3)) ☐ Yes ☐ No _____

This requirement is in the Report on page:

For each hazardous waste stream identified in 8 above,

9. Does the Report provide an estimate of the quantity, in pounds, of waste generated and managed, both on-site and off-site, during the current reporting year and the baseline year? (CCR Section 67100.8(a)(3)(A)) ☐ Yes ☐ No _____

10. Is there a listing and description of current hazardous waste management approaches implemented since the baseline year? (CCR Section 67100.8(a)(3)(B)) ☐ Yes ☐ No _____

11. Is there an assessment of the effectiveness of each hazardous waste management approach implemented since the baseline year? (CCR Section 67100.8(a)(3)(C)) ☐ Yes ☐ No _____

12. Does the assessment of implemented waste management approaches consider the following: (CCR Section 67100.8 (a)(3)(C))

- Source Reduction? ☐ Yes ☐ No _____
- On-site or off-site recycling? ☐ Yes ☐ No _____
- On-site or off-site treatment? ☐ Yes ☐ No _____

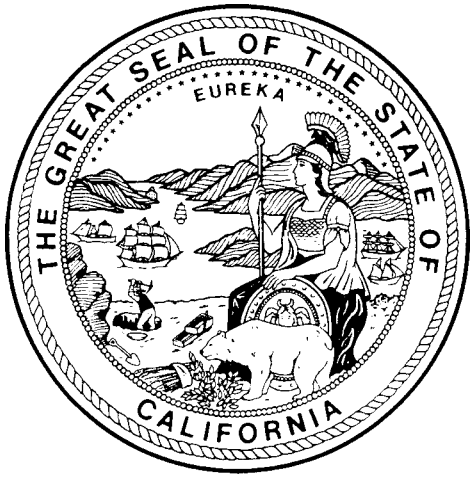
13. If applicable, does the Report describe factors that, during the period between the baseline year and the current reporting year, have affected hazardous waste generation and on-site and off-site hazardous waste management practices? (CCR Section 67100.8(a)(3)(D)) ☐ Yes ☐ No _____

14. When describing factors affecting hazardous waste management practices at the site, did the generator consider: _____

- Changes in business activity? ☐ Yes ☐ No _____
- Changes in waste classification? ☐ Yes ☐ No _____
- Natural phenomena? ☐ Yes ☐ No _____

15. Is the Report properly certified? (CCR Section 67100.13)

- Technical Certification ☐ Yes ☐ No _____
- Financial Certification ☐ Yes ☐ No _____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